BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF	)	
DELMARVA POWER & LIGHT COMPANY FOR	)	PSC DOCKET NO. 13-115
AN INCREASE IN ELECTRIC BASE RATES	)	
(Filed March 22, 2013)	)	

DIRECT TESTIMONY

OF

DAVID C. PARCELL

PRESIDENT

TECHNICAL ASSOCIATES, INC.

ON BEHALF OF THE
DIVISION OF THE PUBLIC ADVOCATE

AUGUST 16, 2013

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1 **INTRODUCTION**

2 **Q.** **PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.**

3 A.   My name is David C. Parcell.   I am President and Senior Economist of Technical

4   Associates, Inc.   My business address is Suite 580, 9030 Stony Point Parkway,

5   Richmond, Virginia 23235.

6 **Q.** **PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**

7   **PROFESSIONAL EXPERIENCE.**

8 A.   I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic

9   Institute and State University (Virginia Tech) and a M.B.A. (1985) from Virginia

10   Commonwealth University.   I have been a consulting economist with Technical

11   Associates since 1970.   I have provided cost of capital testimony in public utility

12   ratemaking proceedings dating back to 1972.   In connection with this, I have previously

13   filed testimony and/or testified in about 500 utility proceedings before about 50

14   regulatory agencies in the United States and Canada.   Attachment 1 provides a more

15   complete description of my education and relevant work experience.

16 **Q.** **HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

17 A.   Yes, I have.   Since 1997, I have testified in approximately 20 public utility proceedings

18   before this Commission, all on behalf of the Commission Staff.   Several of these

19   proceedings were Delmarva Power & Light Co. ("DP&L") rate proceedings.

20

DELMARVA POWER & LIGHT, CO.
DOCKET NO. 13-115
DIRECT TESTIMONY OF DAVID C. PARCELL

1 **PURPOSE OF TESTIMONY**

2 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

3 A. My testimony, which I have prepared on behalf of the Division of the Public Advocate

4 ("DPA"), evaluates the cost of capital ("COC") relative to the current filing of DP&L. I

5 have performed independent studies and am making recommendations of the current

6 COC for DP&L. In addition, because DP&L is a subsidiary of Pepco Holdings, Inc.

7 ("PHI"), I also have considered this entity in my risk assessment and analyses of the

8 Company.

9 **RECOMMENDATIONS AND SUMMARY**

10 **Q. PLEASE SUMMARIZE YOUR COC ANALYSES AND RELATED**

11 **CONCLUSIONS FOR DP&L.**

12 A. This proceeding is concerned with DP&L's regulated electric utility operations in

13 Delaware. My analyses address the Company's COC. My overall COC

14 recommendations for DP&L are shown on Exhibit DCP-1 and are summarized below:

15

	Percent	Cost	Return
Long-Term Debt	50.78%	4.91%	2.49%
Common Equity	49.22%	9.20-9.50%	4.53-4.68%
Total	100.00%		7.02-7.17%
			7.09% Mid-Point

18

19 DP&L's application requests a return on common equity ("COE") of 10.25% and overall

20 COC of 7.53%. I propose a COE of 9.35% and an overall COC of 7.09%.

2

1   The first step in performing an analysis of the Company's cost of capital is the

2   development of the appropriate capital structure. DP&L's proposed capital structure is

3   comprised of 50.78% long-term debt and 49.22% common equity, which represents the

4   Company's actual capital structure ratios as of December 31, 2012. I use this capital

5   structure in my COC analyses.

6   The second step in a COC calculation is a determination of the embedded cost of

7   long-term debt. DP&L's application uses a cost of 4.91% for long-term debt which

8   reflects the Company's embedded cost at December 31, 2012. I use this rate in my

9   analyses.

10   The third step in the COC calculation is the estimation of the COE. I have

11   employed three recognized methodologies to estimate the COE for DP&L. Each of these

12   methodologies is applied to two groups of proxy utilities. These three methodologies and

13   my findings are:

Methodology	Range	Mid-Point
Discounted Cash Flow	9.0-9.4%	9.20%
Capital Asset Pricing Model	6.9-7.0%	6.95%
Comparable Earnings	9.0-10.0%	9.50%

17   Based upon these findings, I conclude that the COE for DP&L is within a range of 9.20%

18   to 9.50% (9.35% mid-point). This reflects the mid-point results of my DCF and

19   comparable earnings analyses.

1   Combining these three steps results in an overall COC range of 7.07% to 7.17%.

2   My recommended 9.35% COE results in an overall COC of 7.109%.

3   **ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES**

4   **Q.**   **WHAT ARE THE PRIMARY ECONOMIC AND LEGAL PRINCIPLES THAT**

5   **ESTABLISH THE STANDARDS FOR DETERMINING A FAIR RATE OF**

6   **RETURN FOR A REGULATED UTILITY?**

7   A.   Public utility rates are normally established in a manner designed to allow the recovery of

8   their costs, including capital costs. This is frequently referred to as "cost of service"

9   ratemaking.   Rates for regulated public utilities traditionally have been primarily

10   established using the "rate base - rate of return" concept. Under this method, utilities are

11   allowed to recover a level of operating expenses, taxes, and depreciation deemed

12   reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of

13   return on the assets used and useful (*i.e.,* rate base) in providing service to their

14   customers.

15   The rate base is derived from the asset side of the utility's balance sheet as a

16   dollar amount and the rate of return is developed from the liabilities/owners' equity side

17   of the balance sheet as a percentage. The revenue impact of the rate of return is thus

18   derived by multiplying the rate base by the rate of return (including income taxes).

19   The rate of return is developed from the COC, which is estimated by weighting

20   the capital structure components (*i.e.,* debt, preferred stock, and common equity) by their

4

1   percentages in the capital structure and multiplying these by their cost rates. This is also

2   known as the weighted COC.

3   Technically, "fair rate of return" is a legal and accounting concept that refers to an

4   *ex post* (after the fact) earned return on an asset base, while the COC is an economic and

5   financial concept which refers to an *ex ante* (before the fact) expected or required return

6   on a liability base. In regulatory proceedings, however, the two terms are often used

7   interchangeably, as I have done in my testimony.

8   From an economic standpoint, a fair rate of return is normally interpreted to mean

9   that an efficient and economically managed utility will be able to maintain its financial

10 integrity, attract capital, and establish comparable returns for similar risk investments.

11 These concepts are derived from economic and financial theory and are generally

12 implemented using financial models and economic concepts.

13 Although I am not a lawyer and I do not offer a legal opinion, my testimony is

14 based on my understanding that two United States Supreme Court decisions provide the

15 main standards for a fair rate of return. The first decision is <u>Bluefield Water Works and</u>

16 <u>Improvement Co. v. Public Serv. Comm'n of West Virginia</u>, 262 U.S. 679 (1923). In this

17 decision, the Court stated:

18 What annual rate will constitute **just compensation** depends upon many
19 circumstances and must be **determined by** the **exercise of fair and**
20 **enlightened judgment**, having regard to all relevant facts. A public
21 utility is entitled to such rates as will permit it to **earn a return** on the
22 value of the property which it employs for the convenience of the public
23 equal to that **generally being made** at the same time and in the same

5

1   general part of the country on **investments in other business**
2   **undertakings** which are **attended by corresponding risks and**
3   **uncertainties**; but it has no **constitutional right to profits** such as are
4   realized or anticipated in **highly profitable enterprises or speculative**
5   **ventures.** The **return** should be reasonably sufficient to assure
6   confidence in the **financial soundness** of the utility, and should be
7   adequate, **under efficient and economical management,** to maintain and
8   **support its credit** and **enable it to raise the money** necessary for the
9   proper discharge of its public duties. A rate of return may be reasonable at
10   one time, and become too high or too low by changes affecting
11   opportunities for investment, the money market, and business conditions
12   generally. **[Emphasis added.]**
13

14   It is my understanding that the <u>Bluefield</u> decision established the following

15   standards for a fair rate of return: comparable earnings, financial integrity, and capital

16   attraction. It also noted the changing level of required returns over time as well as an

17   underlying assumption that the utility be operated in an efficient manner.

18   The second decision is <u>Federal Power Comm'n v. Hope Natural Gas Co.,</u> 320

19   U.S. 591 (1942). In that decision, the Court stated:

20   The rate-making process under the [Natural Gas] Act, i.e., the fixing of
21   'just and reasonable' rates, involves a **balancing** of the **investor** and
22   **consumer interests . . . .** From the investor or company point of view it is
23   important that there be enough revenue not only for operating expenses
24   but also for the capital costs of the business. These include service on the
25   debt and dividends on the stock. By that standard the **return** to the equity
26   **owner** should be **commensurate** with **returns** on **investments** in **other**
27   **enterprises having corresponding risks.** That return, moreover, should
28   be sufficient to assure confidence in the **financial integrity** of the
29   enterprise, so as to **maintain its credit** and to **attract capital. [Emphasis**
30   **added.]**
31

1   The Hope case is also frequently credited with establishing the "end result" doctrine,

2   which maintains that the methods utilized to develop a fair return are not as important as

3   long as the end result is reasonable.

4   The three economic and financial parameters in the Bluefield and Hope decisions

5   - comparable earnings, financial integrity, and capital attraction - reflect the economic

6   criteria encompassed in the "opportunity cost" principle of economics. The opportunity-

7   cost principle provides that a utility and its investors should be afforded an opportunity

8   (not a guarantee) to earn a return commensurate with returns they could expect to achieve

9   on investments of similar risk. The opportunity cost principle is consistent with the

10   fundamental premise, on which regulation rests, namely, that it is intended to act as a

11   surrogate for competition.

12 **Q.**   **HOW CAN THESE PARAMETERS BE EMPLOYED TO ESTIMATE THE COC**

13   **FOR A UTILITY?**

14 **A.**   Neither the courts nor economic/financial theory have developed exact and mechanical

15   procedures for precisely determining the COC. This is the case because the COC is an

16   opportunity cost and is prospective-looking, which dictates that it must be estimated.

17   There are several useful models that can be employed to assist in estimating the

18   COE, which is the capital structure item that is the most difficult to determine. These

19   include the Discounted Cash Flow ("DCF"), Capital Asset Pricing Model ("CAPM"),

20   Comparable Earnings ("CE") and Risk Premium ("RP") methods. Each of these methods

1   (or models) differs from the others and each, if properly employed, can be a useful tool in

2   estimating the COE for a regulated utility.

3   **Q.   WHICH METHODS HAVE YOU EMPLOYED IN YOUR ANALYSES OF THE**

4   **COE IN THIS PROCEEDING?**

5   A.   I have utilized three methodologies to determine DP&L's COE: the DCF, CAPM, and

6   CE methods. I have not employed a RP model in my analyses, although, as I indicate

7   later, my CAPM analysis is a form of the RP methodology. Each of these methodologies

8   will be described in more detail in my testimony that follows.

9   **GENERAL ECONOMIC CONDITIONS**

10   **Q.   ARE ECONOMIC AND FINANCIAL CONDITIONS IMPORTANT IN**

11   **DETERMINING THE COC FOR A PUBLIC UTILITY?**

12   A.   Yes. The COC, for both fixed-cost (debt and preferred stock) components and common

13   equity, are determined in part by current and prospective economic and financial

14   conditions. At any given time, each of the following factors has an influence on the

15   COC:

16   • The level of economic activity (i.e., growth rate of the economy);

17   • The stage of the business cycle (i.e., recession, expansion, or transition);

18   • The level of inflation;

19   • The level and trend of interest rates; and

20   • Expected economic conditions.

1   My understanding is that this position is consistent with the *Bluefield* decision that noted

2   "[a] rate of return may be reasonable at one time and become too high or too low by

3   changes affecting opportunities for investment, the money market, and business

4   conditions generally." *Bluefield*, 262 U.S. at 693.

5   **Q.   WHAT INDICATORS OF ECONOMIC AND FINANCIAL ACTIVITY DID YOU**

6   **EVALUATE IN YOUR ANALYSES?**

7   A.   I examined several sets of economic statistics from 1975 to the present. I chose this time

8   period because it permits the evaluation of economic conditions over four full business

9   cycles, allowing for an assessment of changes in long-term trends. This period also

10   approximates the beginning and continuation of active rate case activities by public

11   utilities.

12   A business cycle is commonly defined as a complete period of expansion

13   (recovery and growth) and contraction (recession). A full business cycle is a useful and

14   convenient period over which to measure levels and trends in long-term capital costs

15   because it incorporates the cyclical (i.e., stage of business cycle) influences, and thus,

16   permits a comparison of structural (or long-term) trends.

17   **Q.   PLEASE DESCRIBE THE TIMEFRAME OF THE FOUR PRIOR BUSINESS**

18   **CYCLES AND THE CURRENT CYCLE.**

19   A.   The four prior complete cycles and current cycle cover the following periods:

1

Business Cycle	Expansion Cycle	Contraction Period
1975-1982	Mar. 1975-July 1981	Aug. 1981-Oct. 1982
1982-1991	Nov. 1982-July 1990	Aug. 1990-Mar. 1991
1991-2001	Apr. 1991-Mar. 2001	Apr. 2001-Nov. 2001
2001-2009	Dec. 2001-Nov. 2007	Dec. 2007-June 2009
Current	July 2009-	

Source: National Bureau of Economic Research, "Business Cycle Expansions
and Contractions."

2

3

4

5

6 Q. DO YOU HAVE ANY GENERAL OBSERVATIONS CONCERNING THE

7 RECENT TRENDS IN ECONOMIC CONDITIONS AND THEIR IMPACT ON

8 CAPITAL COSTS OVER THIS BROAD PERIOD?

9 A. Yes, I do. Until the end of 2007, the United States economy had enjoyed general

10 prosperity and stability since the early 1980s.[1] This period had been characterized by

11 longer economic expansions, relatively tame contractions, low and declining inflation,

12 and declining interest rates and other capital costs.

13 However, in 2008 and 2009, the economy declined significantly, initially as a

14 result of the 2007 collapse of the "sub-prime" mortgage market and the related liquidity

15 crisis in the financial sector of the economy. Subsequently, this financial crisis

16 intensified with a more broad-based decline, initially based on a substantial increase in

17 petroleum prices and a dramatic decline in the U.S. financial sector, culminating with the

18 collapse and/or bailouts of a significant number of well-known institutions such as Bear

19 Stearns, Lehman Brothers, Merrill Lynch, Freddie Mac, Fannie Mae, AIG and Wachovia.

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[1]   There was a "Tech Bubble" in 1999-2000, in which prices of many technology stocks encountered a
dramatic run-up that was followed by an equally dramatic decline in 2001-2002.

1   The recession also witnessed the demise of national companies such as Circuit City and

2   the bankruptcies of automotive manufacturers such as Chrysler and General Motors.

3   This decline has been described as the worst financial crisis since the Great

4   Depression and has been referred to as the "Great Recession." Since 2008, the U.S. and

5   other governments have implemented and continue to implement unprecedented actions

6   to attempt to correct or minimize the scope and effects of this recession.

7   The recession reached its low point in mid-2009 and the economy has since begun

8   to expand again, although at a slow and uneven rate. However, the length and severity of

9   the recession, as well as a relatively slow and uneven recovery, indicates that the impacts

10   of the recession have been and will be felt for an extended period of time. As an example

11   of this, even in the fifth year of the recovery/expansion, the U.S. unemployment rate still

12   stands at nearly 8% -- close to the highest unemployment rate experienced over the last

13   several decades.

14   **Q.**   **PLEASE DESCRIBE RECENT AND CURRENT ECONOMIC AND FINANCIAL**

15   **CONDITIONS AND THEIR IMPACT ON THE COC.**

16   **A.**   Exhibit DCP-2 shows several sets of relevant economic data for the cited time periods.

17   Pages 1 and 2 contain general macroeconomic statistics; pages 3 and 4 show interest

18   rates; and pages 5 and 6 contain equity market statistics.

19   Pages 1 and 2 show that 2007 was the sixth year of an economic expansion but, as

20   I previously noted, the economy subsequently entered a significant decline, as indicated

1   by the growth in real (i.e., adjusted for inflation) Gross Domestic Product ("GDP"),

2   industrial production, and an increase in the unemployment rate. This recession lasted

3   until mid-2009, making it a longer-than-normal recession, as well as a deeper recession.

4   Since then, economic growth has been erratic and lower than the initial periods of prior

5   expansions.

6   Pages 1 and 2 also show the rate of inflation. As reflected in the Consumer Price

7   Index ("CPI"), for example, inflation rose significantly during the 1975-1982 business

8   cycle and reached double-digit levels in 1979-1980. The rate of inflation declined

9   substantially beginning in 1981, and remained at or below 6.1% during the 1983-1991

10   business cycle. Since 2008, the CPI has been 3% or lower, with 2012 being only 1.7%.

11   It is thus apparent that the rate of inflation has generally been declining over the past

12   several business cycles. Current levels of inflation are at the lowest levels of the past 35

13   years. Low inflation is reflective of lower capital costs.

14   Q.   **WHAT HAVE BEEN THE TRENDS IN INTEREST RATES OVER THE FOUR**

15   **PRIOR BUSINESS CYCLES AND AT THE CURRENT TIME?**

16   A.   Pages 3 and 4 show several series of interest rates. Rates reached record levels in 1975-

17   1981 when the inflation rate was high and generally rising. They declined substantially

18   (in conjunction with inflation rates) during the remainder of the 1980s and throughout the

19   1990s. Interest rates declined even further from 2000-2005 and generally recorded their

20   then-lowest levels since the 1960s.

1   Since 2008, the Federal Reserve has lowered the Federal Funds rate (i.e., short-

2 term rate) to 0.25%, an all-time low. The Federal Reserve has also purchased U.S.

3 Treasury securities to stimulate the economy. As seen on page 4, both U.S. and corporate

4 bond yields declined to their lowest levels seen in the past four business cycles and in

5 more than 35 years. Even with the recent increases, both government and corporate

6 lending rates remain at historically low levels, again reflective of lower capital costs.

7 Q. **WHAT DOES THIS EXHIBIT SHOW FOR TRENDS OF COMMON SHARE**

8   **PRICES?**

9 A. Pages 5 and 6 show several series of common stock prices and ratios. These indicate that

10   stock prices were essentially stagnant during the high inflation/high interest rate

11   environment of the late 1970s and early 1980s. The 1983-1991 business cycle and the

12   more recent cycles witnessed a significant upward trend in stock prices. The beginning

13   of the recent financial crisis saw stock prices decline precipitously, as stock prices in

14   2008 and early 2009 were down significantly from 2007 levels, reflecting the

15   financial/economic crisis. Beginning in the second quarter of 2009, prices have

16   recovered substantially and have ultimately reached and exceeded the levels achieved

17   prior to the "crash."

18 Q. **WHAT CONCLUSIONS DO YOU DRAW FROM YOUR DISCUSSION OF**

19   **ECONOMIC AND FINANCIAL CONDITIONS?**

1   A.   It is apparent that recent economic and financial circumstances have been different from

2   any that have prevailed since at least the 1930s. The late 2008-early 2009 deterioration in

3   stock prices, the decline in U.S. Treasury bond yields, and an increase in corporate bond

4   yields were evidenced in the then-evident "flight to safety." On the other side of this

5   "flight to safety" is the negative perception of the recent declines in capital costs and

6   returns, which significantly reduced the value of most retirement accounts, investment

7   portfolios and other assets. One significant aspect of this has been a decline in investor

8   expectations of returns. Finally, as noted above, utility interest rates are currently at

9   levels below those prevailing prior to the financial crisis of late 2008 to early 2009 and

10   are near the lowest level in the past 35 years.

11 **DP&L'S OPERATIONS AND BUSINESS RISKS**

12 Q.   **PLEASE SUMMARIZE DP&L AND ITS OPERATIONS.**

13 A.   DP&L is a utility that provides electric transmission, distribution, and default supply to

14   Delaware and portions of Maryland. It also supplies natural gas service in Northern

15   Delaware. DP&L is ultimately a wholly-owned subsidiary of PHI.

16   Two mergers over the past several years have resulted in changes in DP&L's

17   organizational structure. In 1998, DP&L combined with Atlantic Energy, Inc. (parent

18   company of Atlantic City Electric Company – ACE) to form Conectiv, a holding

19   company for DP&L and ACE. In 2002, Conectiv was acquired by PHI (formerly

1   Potomac Electric Power Co.). Conectiv is now a subsidiary of PHI and DP&L and ACE

2   are subsidiaries of Conectiv.

3   **Q.**   **PLEASE DESCRIBE PHI.**

4   A.   PHI was created in connection with the 2002 merger of Potomac Electric Power Co. and

5   Conectiv. This is a holding company whose primary subsidiaries are:

6   •   Potomac Electric Power Company ("Pepco") – a regulated utility that
7   delivers electricity in Washington, D.C. and its Maryland suburbs;
8

9   •   Conectiv, LLC – an entity that owns DP&L and ACE, which provide
10   electric and gas delivery in Delaware, Maryland and New Jersey;
11

12   •   Pepco Energy Services, Inc. – a provider of energy efficiency and
13   renewable energy services; and,
14

15   •   Potomac Capital Investment Corporation – invests in energy-related
16   financial investments.
17

18   Within this framework, DP&L, ACE and Pepco remain as separate operating public

19   utilities.

20   **Q.**   **WHAT ARE THE CURRENT BOND RATINGS OF DP&L?**

21   A.   The present bond ratings (senior secured debt) of DP&L are as follows:

22   Moody's   A3

23   Standard & Poor's   A

24   **Q.**   **WHAT HAVE BEEN THE TRENDS IN DP&L'S AND PHI'S BOND RATINGS?**

1   A.   This is shown on Exhibit DCP-3, which indicates two points. First, DP&L has

2   experienced upgrades in its ratings since 2007. Second, the ratings of DP&L are similar

3   to those of Pepco and ACE, but higher than those of PHI.

4   Q.   **HOW DO DP&L'S CURRENT BOND RATINGS COMPARE TO THOSE OF**

5   **OTHER ELECTRIC AND COMBINATION GAS/ELECTRIC UTILITIES?**

6   A.   As I indicated in the previous answer, DP&L has single-A bond ratings on its senior

7   long-term debt. Below is a table depicting the bond rating data of the 51 electric utilities

8   and combination gas/electric utilities covered by AUS Utility Reports:. As can be seen,

9   Delmarva's "A" rating is better than most of the utilities, and its A3 rating is exceeded by

10   only 13 of the 51 companies.

Moody's Rating	Number of Companies	S&P Rating	Number of Companies
Aa3	1	AA-	1
A1	3	A+	--
A2	10	A	6*
A3	13*	A-	16
Baa1	11	BBB+	10
Baa2	11	BBB	13
Baa3	--	BBB-	4
Ba or less	--	BB	--
NR	2	NR	3

       * DP&L ratings.

1 **CAPITAL STRUCTURE**

2 **Q. WHAT IS THE IMPORTANCE OF DETERMINING A PROPER CAPITAL**

3 **STRUCTURE IN A REGULATORY FRAMEWORK?**

4 A. A utility's capital structure is important because the concept of rate base – rate of return

5 regulation requires that a utility's capital structure be determined and utilized in

6 estimating the total cost of capital. Within this framework, it is proper to ascertain

7 whether the utility's capital structure is appropriate relative to its level of business risk

8 and relative to other utilities.

9 As discussed in Section III of my testimony, the purpose of determining the

10 proper capital structure for a utility is to help ascertain its capital costs. The rate base-

11 rate of return concept recognizes the assets employed in providing utility services and

12 provides for a return on these assets by identifying the liabilities and common equity (and

13 their cost rates) used to finance the assets. In this process, the rate base is derived from

14 the asset side of the balance sheet and the cost of capital is derived from the

15 liabilities/owners' equity side of the balance sheet. The inherent assumption in this

16 procedure is that the dollar values of the capital structure and the rate base are

17 approximately equal and the former is utilized to finance the latter.

18 The common equity ratio (*i.e.*, the percentage of common equity in the capital

19 structure) is the capital structure item which normally receives the most attention. This is

20 the case because common equity: (1) usually commands the highest cost rate; (2)

17

1   generates associated income tax liabilities; and, (3) causes the most controversy since its

2   cost cannot be precisely determined.

3 Q. **HOW HAVE YOU EVALUATED DP&L's CAPITAL STRUCTURE?**

4 A. I have first examined DP&L's five year historic (2008-2012) capital structure ratios.

5   These are shown on Page 1 of Exhibit DCP-4. I have summarized below the common

6   equity ratios for DP&L:

	Including S-T Debt	Excluding S-T Debt
2008	44.8%	49.2%
2009	50.7%	50.7%
2010	49.3%	49.3%
2011	48.3%	49.6%
2012	48.4%	49.2%

11   Page 2 of Exhibit DCP-4 shows PHI's historic capital structure ratios on a consolidated

12   basis. This indicates the following common equity ratios.

	Including S-T Debt	Excluding S-T Debt
2008	43.8%	45.3%
2009	43.2%	45.0%
2010	50.2%	52.7%
2011	48.6%	52.0%
2012	46.3%	50.7%

17   These common equity ratios are similar to those of DP&L.

18   Page 3 of Exhibit DCP-4 shows the 2012 capital structure ratios of PHI's utility

19   subsidiaries. DP&L's common equity ratios are seen to be somewhat higher than the

20   common equity range of the other utility companies.

1 **Q. HOW DO THESE CAPITAL STRUCTURES COMPARE TO THOSE OF**

2 **INVESTOR-OWNED ELECTRIC UTILITIES?**

3 A. Exhibit DCP-5 shows the common equity ratios (including short-term debt in

4 capitalization) for the two groups of electric utilities covered by AUS Utility Reports.

5 These are:

Year	Electric	Combination Gas and Electric
2008	45%	43%
2009	46%	45%
2010	46%	46%
2011	47%	46%
2012	47%	46%

10 These common equity ratios are slightly lower than those of DP&L and PHI.

11 **SELECTION OF PROXY GROUPS**

12 **Q. HOW HAVE YOU ESTIMATED THE COE FOR DP&L?**

13 A. DP&L is not a publicly-traded company. PHI, DP&L's parent company, is a publicly-

14 traded company. Consequently, it is possible to directly apply COE models to this entity.

15 However, it is generally preferred to analyze groups of comparison or "proxy" companies

16 as a substitute for DP&L to determine its cost of common equity.

17 I have examined two such groups for comparison of DP&L. I selected one group

18 of electric utilities similar to DP&L and PHI using the criteria listed on Exhibit DCP-6:

19 (1) Market capitalization of $1 billion to 10 billion;

20 (2) Electric revenues 50% or greater;

1   (3)   Common equity ratio 40% or greater;

2   (4)   Value Line safety rank of 1, 2 or 3;

3   (5)   Standard & Poor's ("S&P") stock ranking of A or B;

4   (6)   S&P or Moody's bond ratings of A;

5   (7)   Currently pays dividends; and

6   (8)   Is not currently involved in a major merger.

7   Second, I have conducted studies of the COE for the group of "comparison companies"

8   selected by DP&L witness Mr. Hevert.

9   **DISCOUNTED CASH FLOW ANALYSIS**

10   Q.   **WHAT IS THE THEORY AND METHODOLOGICAL BASIS OF THE**

11   **DISCOUNTED CASH FLOW MODEL?**

12   A.   The discounted cash flow (DCF) model is one of the oldest, as well as the most

13   commonly-used, models for estimating the COE for public utilities. The DCF model is

14   based on the "dividend discount model" of financial theory, which maintains that the

15   value (price) of any security or commodity is the discounted present value of all future

16   cash flows.

17   The most common variant of the DCF model assumes that dividends are expected

18   to grow at a constant rate. This variant of the dividend discount model is known as the

19   constant growth or Gordon DCF model. In this framework cost of capital is derived by

20   the following formula:

$$K = \frac{D}{P} + g$$

1

2   where:

3   K = discount rate (cost of capital)

4   P = current price

5   D = current dividend rate

6   g = constant rate of expected growth

7   This formula essentially recognizes that the return expected or required by investors is

8   comprised of two factors: the dividend yield (current income) and expected growth in

9   dividends (future income).

10   **Q.**   **PLEASE EXPLAIN HOW YOU HAVE EMPLOYED THE DCF MODEL.**

11   A.   I have utilized the constant growth DCF model. In doing so, I have combined the current

12   dividend yield for the groups of proxy utility stocks described in the previous section

13   with several indicators of expected dividend growth.

14   **Q.**   **HOW DID YOU DERIVE THE DIVIDEND YIELD COMPONENT OF THE DCF**

15   **EQUATION?**

16   A.   There are several methods that can be used for calculating the dividend yield component.

17   These methods generally differ in the manner in which the dividend rate is employed;

18   *i.e.*, current versus future dividends, or annual versus quarterly compounding of

19   dividends. I believe the most appropriate dividend yield component is the version listed

20   below:

$$Yield = \frac{D_0(1+0.5g)}{P_0}$$

1

2   This dividend yield component recognizes that dividend payments and dividend increases

3   occur at different times throughout the year.

4   The P_0 in my yield calculation is the average (of high and low) stock price for

5   each proxy company for the most recent three month period (May-July, 2013). The D_0 is

6   the current annualized dividend rate for each proxy company.

7   **Q.   HOW HAVE YOU ESTIMATED THE DIVIDEND GROWTH COMPONENT OF**

8   **THE DCF EQUATION?**

9   A.   The dividend growth rate component of the DCF model is usually the most crucial and

10   controversial element involved in using this methodology. The objective of estimating

11   the dividend growth component is to reflect the growth expected by investors that is

12   embodied in the price (and yield) of a company's stock. As such, it is important to

13   recognize that individual investors have different expectations and consider alternative

14   indicators in deriving their expectations. This is evidenced by the fact that every

15   investment decision resulting in the purchase of a particular stock is matched by another

16   investment decision to sell that stock. Obviously, since two investors reach different

17   decisions at the same market price, their expectations differ.

18   A wide array of indicators exists for estimating the growth expectations of

19   investors. As a result, it is evident that no single indicator of growth is always used by all

1   investors, and so I believe it is necessary to consider alternative indicators of dividend

2   growth in deriving the growth component of the DCF model.

3   I have considered five indicators of growth in my DCF analyses. These are:

4   1.   2008-2012 (5-year average) earnings retention, or fundamental growth
5   (per Value Line);
6

7   2.   5-year average of historic growth in earnings per share ("EPS"), dividends
8   per share ("DPS"), and book value per share ("BVPS") (per Value Line);
9

10   3.   2013, 2014 and 2016-2018 projections of earnings retention growth (per
11   Value Line);
12

13   4.   2010-2012 to 2016-2018 projections of EPS, DPS, and BVPS (per Value
14   Line); and,
15

16   5.   5-year projections of EPS growth (per First Call).
17

18   I believe this combination of growth indicators is a representative and appropriate set

19   with which to begin the process of estimating investor expectations of dividend growth

20   for the groups of proxy companies. As I indicated previously, investors have an array of

21   information available to them, all of which should be expected to have some impact on

22   their decision-making process.

23   **Q.**   **PLEASE DESCRIBE YOUR DCF CALCULATIONS.**

24   A.   Exhibit DCP-7 presents my DCF analysis. Page 1 shows the calculation of the "raw"

25   (i.e., prior to adjustment for growth) dividend yield for each proxy company. Pages 2

26   and 3 show the various growth rates for the groups of proxy companies. Page 4 shows

1   the "raw" DCF calculations, which are presented on several bases: mean, median, and

2   low/high values. These results can be summarized as follows:

3

	Mean	Median	Mean Low[2]	Mean High[3]	Median Low[2]	Median High[2]
Proxy Group	8.1%	7.9%	7.0%	9.4%	6.7%	9.0%
Hevert Group	8.2%	8.0%	6.8%	9.0%	6.4%	9.1%

6   I note that the individual DCF calculations shown on Exhibit DCP-7 should not be

7   interpreted to reflect the expected cost of capital for the proxy groups; rather, the

8   individual values shown should be interpreted as alternative information considered by

9   investors. The individual DCF calculations also demonstrate how the focus on a single

10   growth rate, such as EPS projections, can produce a DCF conclusion that is not reflective

11   of a broader perspective of available information.

12   The results in Exhibit DCP-7 indicate average (mean and median) DCF cost rates

13   of 7.9% to 8.2%. The "high" DCF rates (i.e., using the highest growth rates only) are

14   between 9.0% and 9.4% on an average basis and median basis.

15 **Q.**   **WHAT DO YOU CONCLUDE FROM YOUR DCF ANALYSES?**

16 A.   This analysis reflects a broad DCF range of about 6.8% to about 9.4% for the proxy

17   groups. This is approximated by the average/mean value and high values for the proxy

18   groups examined in the previous analysis. I give less weight to the low values and

---

[2]   Using only the lowest growth rate.
[3]   Using only the highest growth rate.

24

1   average values of the groups. I believe that 9.0% to 9.4% (9.20% mid-point) reflects the

2   proper DCF-calculated COE for DP&L.

3   **CAPITAL ASSET PRICING MODEL ANALYSIS**

4   **Q.**   **PLEASE DESCRIBE THE THEORY AND METHODOLOGICAL BASIS OF**

5   **THE CAPM.**

6   A.   The CAPM is a version of the risk premium method that describes and measures the

7   relationship between a security's investment risk and its market rate of return. The

8   CAPM was developed in the 1960s and 1970s as an extension of modern portfolio

9   theory, which studies the relationships among risk, diversification, and expected returns.

10   **Q.**   **HOW IS THE CAPM DERIVED?**

11   A.   The general form of the CAPM is:

$$K = R_f + \beta(R_m - R_f)$$

13   where: K = cost of equity

14   R_f = risk free rate

15   R_m = return on market

16   β = beta

17   R_m-R_f = market risk premium

18   As noted previously, the CAPM is a variant of the risk premium method. I believe the

19   CAPM is generally superior to the simple risk premium method because the CAPM

20   specifically recognizes the risk of a particular company or industry (*i.e.*, beta), whereas

1   the simple risk premium method assumes the same risk premium for all companies

2   exhibiting similar bond ratings.

3   **Q.**   **WHAT GROUP OF COMPANIES HAVE YOU UTILIZED TO PERFORM YOUR**

4   **CAPM ANALYSES?**

5   **A.**   I have performed CAPM analyses for the same groups of proxy utilities evaluated in my

6   DCF analyses.

7   **Q.**   **PLEASE EXPLAIN THE RISK-FREE RATE AS USED IN YOUR CAPM AND**

8   **INDICATE WHAT RATE YOU EMPLOYED.**

9   **A.**   The first term of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the level

10   of return that can be achieved without accepting any risk.

11   In CAPM applications, the risk-free rate is generally recognized by use of U.S.

12   Treasury securities. Two general types of U.S. Treasury securities are often utilized as

13   the R_f component - short-term U.S. Treasury bills and long-term U.S. Treasury bonds.

14   I have performed CAPM calculations using the most recent three-month average

15   yield (May-July 2013) for 20-year U.S. Treasury bonds. Over this three-month period,

16   these bonds had an average yield of 3.04%.

17   **Q.**   **WHAT IS BETA AND WHAT BETAS DID YOU EMPLOY IN YOUR CAPM?**

18   **A.**   Beta is a measure of the relative volatility (and thus risk) of a particular stock in relation

19   to the overall market. Betas of less than 1.0 are considered less risky than the market,

20   whereas betas greater than 1.0 are more risky. Utility stocks traditionally have had betas

1   below 1.0. I utilized the most recent Value Line betas for each company in the groups of

2   proxy utilities.

3 Q. **HOW DID YOU ESTIMATE THE MARKET RISK PREMIUM COMPONENT IN**

4   **YOUR CAPM ANALYSIS?**

5 A. The market risk premium component (R_m-R_f) represents the investor-expected premium

6   of common stocks over the risk-free rate, or government bonds. For the purpose of

7   estimating the market risk premium, I considered alternative measures of returns of the

8   S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S. Treasury

9   bonds.

10   First, I have compared the actual annual returns on equity of the S&P 500 with the

11   actual annual yields of U.S. Treasury bonds. Exhibit DCP-8 shows the return on equity

12   for the S&P 500 group for the period 1978-2012 (all available years reported by S&P).

13   This schedule also indicates the annual yields on 20-year U.S. Treasury bonds, as well as

14   the annual differentials (*i.e.*, risk premiums) between the S&P 500 and U.S. Treasury 20-

15   year bonds. Based upon these returns, I conclude that this version of the risk premium is

16   about 6.6%.

17   I have also considered the total returns (i.e., dividends/interest plus capital

18   gains/losses) for the S&P 500 group as well as for the long-term government bonds, as

19   tabulated by Morningstar (formerly Ibbotson Associates), using both arithmetic and

1   geometric means. I have considered the total returns for the entire available period

2   (1926-2012), which are as follows:

3

	S&P 500	L-T Gov't Bonds	Risk Premium
Arithmetic	11.8%	6.1%	5.7%
Geometric	9.8%	5.7%	4.1%

5   I conclude from this that the expected risk premium is about 5.47% (i.e., average of all

6   three risk premiums). I believe that a combination of arithmetic and geometric means is

7   appropriate since investors have access to both types of means and, presumably, both

8   types are reflected in investment decisions and thus stock prices and cost of capital.

9 Q. **WHAT ARE YOUR CAPM RESULTS?**

10 A. Exhibit DCP-9 shows my CAPM calculations. The results are:

11

	Mean	Median
Proxy Group	7.0%	6.9%
Hevert Group	7.0%	6.9%

13

14 Q. **WHAT IS YOUR CONCLUSION CONCERNING THE CAPM COE?**

15 A. The result of my CAPM analyses collectively indicates a COE of 6.9% to 7.0% for the

16   groups of proxy utilities. I conclude that the CAPM COE for DP&L is 6.9% to 7.0%.

17 **COMPARABLE EARNINGS ANALYSIS**

18 Q. **PLEASE DESCRIBE THE BASIS OF THE CE METHODOLOGY.**

19 A. The CE method is derived from the "corresponding risk" concept discussed in the

20   *Bluefield* and *Hope* cases, and thus is based upon the economic concept of opportunity

28

1   cost. As previously noted, the cost of capital is an opportunity cost: the prospective

2   return available to investors from alternative investments of similar risk.

3   The CE method is designed to measure the returns expected to be earned on the

4   original cost book value of similar risk enterprises. Thus, it provides a direct measure of

5   the fair return, since it translates into practice the competitive principle upon which

6   regulation rests.

7   The CE method normally examines the experienced and/or projected returns on

8   book common equity ("ROE"). The logic for examining ROE follows from the use of

9   original cost rate base regulation for public utilities, which uses a utility's book common

10   equity to determine the COC. This COC is, in turn, used as the fair rate of return which

11   is then applied to (multiplied by) the book value of rate base to establish the dollar level

12   of capital costs to be recovered by the utility. This technique is thus consistent with the

13   rate base-rate of return methodology used to set utility rates.

14   Q.   HOW DO YOU APPLY THE CE METHODOLOGY IN YOUR ANALYSIS OF

15   DP&L'S COE?

16   A.   I apply the CE methodology by examining realized ROEs for the two groups of proxy

17   companies and unregulated companies, and evaluating investor acceptance of these

18   returns by reference to the resulting market-to-book ratios ("M/B"). In this manner it is

19   possible to assess the degree to which a given level of return equates to the COC. It is

20   generally recognized for utilities that M/Bs of greater than one (*i.e.* 100%) reflect a

1   situation where a company is able to attract new equity capital without dilution (*i.e.*

2   above book value). As a result, one objective of a fair COE is the maintenance of stock

3   prices at or above book value. There is no regulatory obligation to set rates designed to

4   maintain a M/B significantly above one.

5   I further note that my CE analysis is based upon market data (through the use of

6   M/B) and is thus essentially a market test. As a result, my CE analysis is not subject to

7   the criticisms occasionally made by some who maintain that past earned returns do not

8   represent the cost of capital. In addition, my CE analysis also uses prospective returns

9   and thus is not backward looking.

10   Q.   **WHAT TIME PERIODS DO YOU EXAMINE IN YOUR CE ANALYSIS?**

11   A.   My CE analysis considers the experienced ROEs of the proxy groups of utilities for the

12   period 1992-2012 (*i.e.* the last twenty-one years). The CE analysis requires that I

13   examine a relatively long period of time in order to determine trends in earnings over at

14   least a full business cycle. Further, in estimating a fair level of return for a future period,

15   it is important to examine earnings over a diverse period of time in order to avoid any

16   undue influence from unusual or abnormal conditions that may occur in a single year or

17   shorter period. Therefore, in forming my judgment of the current COE, I focused on

18   three periods: 2009-2012 (the current cycles), 2002-2008 (the most recent business

19   cycle) and 1992-2001 (the previous business cycle).

20   Q.   **PLEASE DESCRIBE YOUR CE ANALYSIS.**

1 A.   Exhibits DCP-10 and DCP-11 contain summaries of experienced ROEs for three groups

2   of companies, while Exhibit DCP-12 presents a risk comparison of utilities versus

3   unregulated firms.

4   Exhibit DCP-10 shows the ROEs and M/Bs for the groups of proxy utilities.

5   These can be summarized as follows:

6

	Proxy Group	Hevert Group
Historic ROE		
Mean	9.1-11.8%	8.4-11.5%
Median	9.2-12.0%	8.3-11.8%
Historic M/B		
Mean	128-170%	122-155%
Median	120-161%	118-162%
Prospective ROE		
Mean	9.3-10.0%	9.2-9.8%
Median	8.8-9.5%	9.0-9.8%

13   These results indicate that ROEs of 8.3% to 12.0% have been adequate to produce

14   M/Bs of 120% to 170% for the groups of utilities. Furthermore, projected ROEs for

15   2013, 2014 and 2016-2018 range from 8.8% to 10.0% for the utility groups. These relate

16   to 2012 M/Bs of 134% or greater.

17 Q.   **DID YOU ALSO REVIEW THE EARNINGS OF UNREGULATED FIRMS?**

18 A.   Yes. As an alternative, I also examined the S&P 500 Composite group. This is a well-

19   recognized group of firms that is widely utilized in the investment community and is

20   indicative of the competitive sector of the economy. Exhibit DCP-11 presents the earned

1   returns on equity and market-to-book ratios for the S&P 500 group over the past twenty-

2   one years (i.e., 1992-2012). As this schedule indicates, over the three business cycle

3   periods, this group's average ROE ranged from 12.4% to 14.7%,, with average M/Bs

4   ranging between 204% and 341%.

5   **Q.**   **HOW CAN THE ABOVE INFORMATION BE USED TO ESTIMATE DP&L's**

6   **COE?**

7   A.   The recent earnings of the proxy utilities and S&P 500 groups can be viewed as an

8   indication of the level of return realized and expected in the regulated and competitive

9   sectors of the economy. In order to apply these returns to the COE for the proxy utilities,

10   however, it is necessary to compare the risk levels of the electric utilities and the

11   competitive companies. I do this in Exhibit DCP-12, which compares several risk

12   indicators for the S&P 500 group and the electric utility groups. The information in

13   Exhibit DCP-12 indicates that the S&P 500 group is more risky than the electric proxy

14   groups.

15   **Q.**   **WHAT COE IS INDICATED BY YOUR CE ANALYSIS?**

16   A.   Based on ROEs and M/Bs, my CE analysis indicates that the COE for the proxy utilities

17   is no more than 9.0% to 10.0%. Recent ROEs of 8.3% to 12.0% have resulted in M/Bs

18   more than 120%. Prospective ROEs of 8.8% to 10.0% have been accompanied by M/Bs

19   over 130%. As a result, it is apparent that authorized returns below this level would

20   continue to result in M/B of well above 100%. An earned return of 9.0% to 10.0%

1   should thus result in a M/B well above 100%. As I indicated earlier, the fact that M/B

2   ratios substantially exceed 100% indicates that historic and prospective ROEs of over

3   10.0% reflect earnings levels that are well above the actual COE for those regulated

4   companies. I also note that a company whose stock sells above book value can attract

5   capital in a way that enhances the book value of existing stockholders, thus creating a

6   favorable environment for financial integrity.

7   **COE RECOMMENDATION**

8   Q.   **PLEASE SUMMARIZE THE RESULTS OF YOUR THREE COE ANALYSES.**

9   A.   My three analyses produce the following results:

10   DCF   9.0-9.4%   (9.20% mid-point)

11   CAPM   6.9-7.0%   (6.95% mid-point)

12   CE   9.0-10.0%   (9.50% mid-point)

13
14   These results indicate an overall broad range of 6.9% to 10.0%, which focuses on

15   the respective ranges of my individual model results. Focusing on the respective

16   midpoints, the range is 6.95% to 9.5%. I recommend a COE range of 9.2% to 9.5% for

17   DP&L. Though this recommendation is higher than my CAPM findings, it includes the

18   mid-point of my DCF range (9.2%) and the mid-point of my CE range (9.5%). For the

19   purposes of this proceeding, I recommend the mid-point of this range, which is 9.35%. I

20   note that my 9.35% recommendation exceeds the mid-point of my DCF analyses, which

21   in turn, essentially incorporates only the highest of the growth rates.

1   Q.   **YOUR CAPM RESULTS ARE LESS THAN YOUR DCF AND CE RESULTS.**

2   **DOES THIS IMPLY THAT THE CAPM RESULTS SHOULD NOT BE**

3   **CONSIDERED IN DETERMINING THE COE FOR DP&L?**

4   A.   No. It is apparent that the CAPM results are less than the DCF and CE results. There are

5   two reasons for the lower CAPM results. First, risk premiums are lower currently than

6   was the case in prior years. This is also reflective of a decline in investor expectations of

7   equity returns and risk premiums. Second, the level of interest rates on U.S. Treasury

8   bonds (i.e., the risk-free rate) has been lower in recent years. This is partially the result

9   of the actions of the Federal Reserve System to stimulate the economy. This also impacts

10   investor expectations of return in a negative fashion. I note that, initially, investors may

11   have believed that the decline in Treasury yields was a temporary factor that would soon

12   be replaced by a rise in interest rates. However, this has not been the case as interest

13   rates have remained low and, even with recent increases, continue to be at historically

14   low levels. As a result, it cannot be maintained that low interest rates (and low CAPM

15   results) are temporary and do not reflect investor expectations. Consequently, the CAPM

16   results should be considered as one factor in determining the cost of equity for DP&L.

17   At the very least, the CAPM results indicate the capital costs continue at historically low

18   levels and that DP&L's COE is less than in prior years.

19

20

1   **TOTAL COST OF CAPITAL**

2   **Q.   WHAT IS THE TOTAL COC FOR DP&L?**

3   A.   Exhibit DCP-1 reflects the COC for the Company using DP&L's proposed capital

4   structure along with the cost of debt and range of common equity costs my analyses

5   support. The resulting COC is a range of 7.02% to 7.17% (7.09% with my recommended

6   9.35% COE). I recommend that this 7.09% COC be established for DP&L.

7   **Q.   DOES YOUR COC RECOMMENDATION PROVIDE THE COMPANY WITH A**

8   **SUFFICIENT LEVEL OF EARNINGS TO MAINTAIN ITS FINANCIAL**

9   **INTEGRITY?**

10 A.   Yes, it does. Exhibit DCP-13 shows the pre-tax coverage that would result if DP&L

11   earned my COC recommendation. As the results indicate, my recommended range would

12   result in a coverage level within the benchmark range for an A-rated utility. In addition,

13   the debt ratio (which reflects the Company's proposed capital structure) is within the

14   benchmark for an A-rated utility.

15 **COMMENTS ON COMPANY TESTIMONY**

16 **Q.   WHAT COE IS DP&L REQUESTING IN THIS PROCEEDING?**

17 A.   DP&L is requesting a COE of 10.25%. This request is contained in the testimony of

18   DP&L witness Mr. Hevert.

19 **Q.   HAVE YOU REVIEWED THE TESTIMONY OF DP&L WITNESS ROBERT B.**

20   **HEVERT?**

1 A. Yes, I have. Mr. Hevert indicates (page 2, lines 18-22) that in his view that a 10.5% COE

2   is "reasonable and appropriate" for DP&L and, thus, the Company's 10.25% requested

3   COE is "reasonable, if not conservative." His recommendation is derived as follows:

DCF Results	Mean Low	Mean	Mean High
		Mean Results	
30-Day Average	9.00%	10.21%	11.63%
90-Day Average	9.09%	10.30%	11.71%
180-Day Average	9.08%	10.29%	11.71%
		Median Results	
30-Day Average	9.65%	10.47%	11.39%
90-Day Average	9.80%	10.62%	11.44%
180-Day Average	9.88%	10.70%	11.39%

CAPM Results	Current 30-Year Treasury (3.12%)	Near-Term Projected 30- Year Year Treasury (3.25%)
Value Line Beta Coefficient		
Sharpe Ratio Derived Market Risk Premium	7.44%	7.57%
Bloomberg Derived Market Risk Premium	10.20%	10.33%
Capital IQ Derived Market Risk Premium	10.15%	10.28%
Bloomberg Beta Coefficient		
Sharpe Ratio Derived Market Risk Premium	7.43%	7.57%
Bloomberg Derived Market Risk Premium	10.19%	10.32%
Capital IQ Derived Market Risk Premium	10.14%	10.27%

Bond Yield Plus Risk Premium

	Current (3.12%)	Near-Term Projected (3.25%)	Long-Term Projected (5.10%)
Risk Premium	10.23%	10.24%	10.76%

1   **Q.   DO YOU HAVE ANY GENERAL COMMENTS ABOUT MR. HEVERT'S**

2   **TESTIMONY AND CONCLUSIONS?**

3   A.   Yes, I do. Mr. Hevert's testimony significantly overstates DP&L's COC. Each of his

4   methods, and virtually all of his inputs into those methods, is systematically biased

5   upward in a manner that significantly inflates his COE conclusions.

6   **Q.   WHAT ARE YOUR DISAGREEMENTS WITH MR. HEVERT'S CONSTANT**

7   **GROWTH DCF ANALYSES?**

8   A.   Mr. Hevert's constant growth DCF analyses are based on 30-day, 90-day and 180-day

9   average stock prices for the periods ending February 15, 2013, annualized dividends per

10   share as of February 15, 2013 and the average of Value Line, First Call and Zack's EPS

11   projections. His DCF analyses are applied to his group of twelve electric utilities.

12   Mr. Hevert's constant growth DCF analyses are shown on his Exhibit RBH-1. It

13   is apparent from review of his Exhibit that his "Low DCF ROE" for each proxy company

14   reflects the dividend yield and the lowest of the three EPS growth rates he considers. His

15   "Mean DCF ROE" considers the average of all three EPS growth rates and his "High

16   DCF ROE" only considers the highest EPS growth rate for each company. Stated

17   differently, the "High DCF" result considers only the highest of the three EPS growth

18   rates for each company and ignores the other two EPS growth rates. Thus, the "Mean

19   High DCF" result for one proxy company may reflect only the Zacks EPS Growth, while

20   the "Mean High DCF" result for another proxy company may reflect only the Value Line

37

1   growth result. Mr. Hevert's DCF result implicitly assumes that investors *only* consider

2   the most optimistic EPS growth rate for each individual company in making investment

3   decisions.

4 **Q.** **IS IT APPROPRIATE TO FOCUS ON THE HIGHEST GROWTH RATE, ON A**

5   **COMPANY-TO-COMPANY BASIS, TO DETERMINE THE COE FOR AN**

6   **ELECTRIC UTILITY SUCH AS DP&L?**

7 **A.** No. It is neither realistic nor appropriate to focus on a single EPS growth rate in a DCF

8   context, especially when one "cherry picks" the highest EPS growth rate for each

9   company from among the different EPS growth rate indicators that reflect the highest

10   EPS growth rate for each company. As I indicated above, Mr. Hevert's analyses focus

11   only on methods and data that produce the highest possible results.

12 **Q.** **ARE THERE ANY OTHER PROBLEMS WITH MR. HEVERT'S CONSTANT**

13   **GROWTH DCF ANALYSES?**

14 **A.** Yes. Even though Mr. Hevert purports to examine three alternative growth rates in his

15   constant growth DCF analyses, in reality each of the three focuses on a single statistic:

16   analysts' EPS forecasts.

17 **Q.** **YOU HAVE INDICATED YOUR DISAGREEMENTS WITH THE MANNER IN**

18   **WHICH MR. HEVERT CONDUCTS HIS DCF ANALYSES. DO YOU HAVE**

19   **ANY ADDITIONAL COMMENTS CONCERNING HIS DCF ANALYSES AND**

20   **CONCLUSIONS?**

1 A. Yes, I do. Aside from the points I previously noted – that his analyses focus just on

2   analysts' projections of EPS – it is also apparent that his analyses do not reflect the

3   current DCF COE for an electric utility such as DP&L.

4 Q. **NOTWITHSTANDING YOUR DISAGREEMENTS WITH MR. HEVERT'S DCF**

5   **ANALYSES, HAVE YOU PREPARED AN UPDATE OF THE METHODOLOGY**

6   **AND DATA SOURCES HE USED IN HIS DCF ANALYSES?**

7 A. Yes, I have prepared Exhibit DCP-14 to provide a current version of Mr. Hevert's DCF

8   analyses using the same three sources of EPS projections for the proxy companies he

9   used in his Direct Testimony. I have also updated the dividend yield calculation to reflect

10   three-month stock prices through the end of July 2013.

11 Q. **WHAT ARE THE RESULTS OF YOUR UPDATES OF MR. HEVERT'S DCF**

12   **ANALYSES?**

13 A. The following DCF cost rates are apparent for his group of proxy companies:

| | DCF Results | |
Growth Rate	Average	Median
Zacks	9.20%	9.19%
First Call	8.98%	9.29%
Value Line	9.59%	9.08%

19   These DCF cost rates are generally consistent with the 9.0% to 9.4% DCF results in my

20   testimony.

1 **Q. HAVE YOU ALSO PERFORMED UPDATED DCF ANALYSES USING ONLY**

2 **THE HIGHEST GROWTH RATES, AS MR. HEVERT DOES IN HIS**

3 **TESTIMONY?**

4 A. Yes, I have, even though I do not believe that this is appropriate, since it uses different

5 growth rates for each proxy company, and assumes that investors rely only on the most

6 optimistic projections. Exhibit DCP-14 indicates the updated DCF results, where each

7 company's EPS forecast is the highest of the three possible forecasts. This results in the

8 following results for Mr. Hevert's proxy group:

9 Average DCF 11.35%

10 Median DCF 9.84%

11 **Q. WHY IS THE AVERAGE DCF RESULT SO MUCH HIGHER THAN THE**

12 **MEDIAN DCF RESULT?**

13 A. The average DCF result is higher because two of the proxy companies' highest projected

14 growth rates reflect Value Line EPS projections as follows:

Company	EPS Growth	DCF
Otter Tail Company	21.50%	26.01%
PNM Resources	12.00%	15.09%

18 It is apparent that these estimated EPS growth rates are outliers and are not sustainable.

19 For example, the highest Value Line EPS growth rate for the other proxy companies is

20 6.5%, which is only about one-half as large as PNM Resources and about one-third as

1   large as Otter Tail Corp. As further indication of the unsustainability of these growth

2   rates, one need only examine the most recent historic 5-year growth rate in EPS for these

3   two companies:

Company	EPS Growth
Otter Tail Company	-18.5%
PNM Resources	-4.0%

7   Q.   **HAVE YOU REFLECTED THE AVERAGE UPDATED AVERAGE FOR MR.**

8   **HEVERT'S PROXY GROUP EXCLUDING THESE TWO COMPANIES?**

9   A.   Yes, I have. As is shown on Exhibit DCP-14:

10   Average DCF   9.51%

11   Median DCF   9.45%

12 Q.   **DO YOU AGREE WITH MR. HEVERT'S RISK PREMIUM COMPONENT OF**

13   **THE CAPM?**

14 A.   No. Mr. Hevert's CAPM analyses utilize three risk premium values:[4]

15   Sharpe Ratio MRP   6.03%

16   *Ex Ante* Bloomberg MRP   9.88%

17   *Ex Ante* Capital 1Q MRP   9.81%

18   Each of these greatly exceeds the long-term experience (e.g., 1929 to present) of

19   investment return differential between common stocks and government bonds, as I

20   describe earlier in my testimony. Over this period, risk premiums have averaged less

1   than 6%. Mr. Hevert offered no evidence or rationale to explain why investors would

2   expect such a large increase in risk premiums over historic levels. This is simply another

3   example of how Mr. Hevert chooses data that produces higher and excessive results.

4   **Q.**   **DO YOU HAVE ANY RESPONSES TO MR. HEVERT'S RISK PREMIUM**

5   **ANALYSES?**

6   A.   Yes. Mr. Hevert's risk premium approach compares the allowed ROEs for electric

7   utilities and 30-Year U.S. Government Bond yields over the period 1980 to February

8   2013. He then performs a regression analysis to develop an expected relationship

9   between 30-year U.S. Government Bond yields and the COE for electric utilities. He

10   applies this regression result to three levels of 30-year U.S. Treasury Bonds and

11   correspondingly arrives at his 10.23% to 10.76% conclusion. I note that the average

12   authorized ROE for electric utilities has not been as high as 10.23% since 2010 and has

13   not been as high as 10.76% since 2003.[5] This indicates that Mr. Hevert's risk premium

14   results, which are claimed to be based on regulatory decisions, are excessive relative to

15   these decisions.

16   **Q.**   **DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

17   A.   Yes, it does.

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[4]   Exhibit RBH-2.
[5]   See response to AG-COC-13.

DELMARVA POWER & LIGHT COMPANY
TOTAL COST OF CAPITAL
AS OF DECEMBER 31, 2012

Item	Percent 1/		Cost			Weighted Cost		
Long-Term Debt	50.78%		4.91% 1/				2.49%	
Common Equity	49.22%	9.20%	9.35%	9.50%	4.53%	4.60%	4.68%
Total	100.00%					7.02%		7.17%
							7.09%	
							Mid-Point	

1/ Capital structure ratios and cost of long-term debt contained in Company filing (Schedule No. 4).

ECONOMIC INDICATORS

Year	Real GDP* Growth	Industrial Production Growth	Unemploy- ment Rate	Consumer Price Index	Producer Price Index
		1975 - 1982 Cycle			
1975	-1.1%	-8.9%	8.5%	7.0%	6.6%
1976	5.4%	10.8%	7.7%	4.8%	3.7%
1977	5.5%	5.9%	7.0%	6.8%	6.9%
1978	5.0%	5.7%	6.0%	9.0%	9.2%
1979	2.8%	4.4%	5.8%	13.3%	12.8%
1980	-0.2%	-1.9%	7.0%	12.4%	11.8%
1981	1.8%	1.9%	7.5%	8.9%	7.1%
1982	-2.1%	-4.4%	9.5%	3.8%	3.6%
		1983 - 1991 Cycle			
1983	4.0%	3.7%	9.5%	3.8%	0.6%
1984	6.8%	9.3%	7.5%	3.9%	1.7%
1985	3.7%	1.7%	7.2%	3.8%	1.8%
1986	3.1%	0.9%	7.0%	1.1%	-2.3%
1987	2.9%	4.9%	6.2%	4.4%	2.2%
1988	3.8%	4.5%	5.5%	4.4%	4.0%
1989	3.5%	1.8%	5.3%	4.6%	4.9%
1990	1.8%	-0.2%	5.6%	6.1%	5.7%
1991	-0.5%	-2.0%	6.8%	3.1%	-0.1%
		1992 - 2001 Cycle			
1992	3.0%	3.1%	7.5%	2.9%	1.6%
1993	2.7%	3.4%	6.9%	2.7%	0.2%
1994	4.0%	5.5%	6.1%	2.7%	1.7%
1995	3.7%	4.8%	5.6%	2.5%	2.3%
1996	4.5%	4.3%	5.4%	3.3%	2.8%
1997	4.5%	7.3%	4.9%	1.7%	-1.2%
1998	4.2%	5.8%	4.5%	1.6%	0.0%
1999	3.7%	4.5%	4.2%	2.7%	2.9%
2000	4.1%	4.0%	4.0%	3.4%	3.6%
2001	1.1%	-3.4%	4.7%	1.6%	-1.6%
		2002 - 2009 Cycle			
2002	1.8%	0.2%	5.8%	2.4%	1.2%
2003	2.5%	1.2%	6.0%	1.9%	4.0%
2004	3.5%	2.3%	5.5%	3.3%	4.2%
2005	3.1%	3.2%	5.1%	3.4%	5.4%
2006	2.7%	2.2%	4.6%	2.5%	1.1%
2007	1.9%	2.5%	4.6%	4.1%	6.2%
2008	-0.3%	-3.4%	5.8%	0.1%	-0.9%
2009	-3.1%	-11.3%	9.3%	2.7%	4.3%
		Current Cycle			
2010	2.4%	5.7%	9.6%	1.5%	3.8%
2011	1.8%	3.4%	8.9%	3.0%	4.7%
2012	2.2%	3.6%	8.1%	1.7%	1.4%

*GDP=Gross Domestic Product

Source: Council of Economic Advisors, Economic Indicators, various issues.

ECONOMIC INDICATORS

Year	Real GDP* Growth	Industrial Production Growth	Unemploy- ment Rate	Consumer Price Index	Producer Price Index
2002					
1st Qtr.	2.7%	-3.8%	5.6%	2.8%	4.4%
2nd Qtr.	2.2%	-1.2%	5.9%	0.9%	-2.0%
3rd Qtr.	2.4%	0.8%	5.8%	2.4%	1.2%
4th Qtr.	0.2%	1.4%	5.9%	1.6%	0.4%
2003					
1st Qtr.	1.2%	1.1%	5.8%	4.8%	5.6%
2nd Qtr.	3.5%	-0.9%	6.2%	0.0%	-0.5%
3rd Qtr.	7.5%	-0.9%	6.1%	3.2%	3.2%
4th Qtr.	2.7%	1.5%	5.9%	-0.3%	2.8%
2004					
1st Qtr.	3.0%	2.8%	5.6%	5.2%	5.2%
2nd Qtr.	3.5%	4.9%	5.6%	4.4%	4.4%
3rd Qtr.	3.6%	4.6%	5.4%	0.8%	0.8%
4th Qtr.	2.5%	4.3%	5.4%	3.6%	7.2%
2005					
1st Qtr.	4.1%	3.8%	5.3%	4.4%	5.6%
2nd Qtr.	1.7%	3.0%	5.1%	1.6%	-0.4%
3rd Qtr.	3.1%	2.7%	5.0%	8.8%	14.0%
4th Qtr.	2.1%	2.9%	4.9%	-2.0%	4.0%
2006					
1st Qtr.	5.4%	3.4%	4.7%	4.8%	-0.2%
2nd Qtr.	1.4%	4.5%	4.6%	4.8%	5.6%
3rd Qtr.	0.1%	5.2%	4.7%	0.4%	-4.4%
4th Qtr.	3.0%	3.5%	4.5%	0.0%	3.6%
2007					
1st Qtr.	0.9%	2.5%	4.5%	4.8%	6.4%
2nd Qtr.	3.2%	1.6%	4.5%	5.2%	6.8%
3rd Qtr.	2.3%	1.8%	4.6%	1.2%	1.2%
4th Qtr.	2.9%	1.7%	4.8%	6.4%	10.8%
2008					
1st Qtr.	-1.8%	1.9%	4.9%	2.8%	9.6%
2nd Qtr.	1.3%	0.2%	5.3%	7.6%	14.0%
3rd Qtr.	-3.7%	-3.0%	6.0%	2.8%	-0.4%
4th Qtr.	-8.9%	6.0%	6.9%	-13.2%	-28.4%
2009					
1st Qtr.	-5.3%	-11.6%	8.1%	2.4%	-0.4%
2nd Qtr.	-0.3%	-12.9%	9.3%	3.2%	9.2%
3rd Qtr.	1.4%	-9.3%	9.6%	2.0%	-0.8%
4th Qtr.	4.0%	-4.5%	10.0%	2.5%	8.8%
2010					
1st Qtr.	2.3%	2.7%	9.7%	0.9%	6.5%
2nd Qtr.	2.2%	6.5%	9.7%	-1.2%	-2.4%
3rd Qtr.	2.6%	6.9%	9.6%	2.8%	4.0%
4th Qtr.	2.4%	6.2%	9.6%	2.8%	9.2%
2011					
1st Qtr.	0.1%	5.4%	9.0%	4.8%	9.6%
2nd Qtr.	2.5%	3.6%	9.0%	3.2%	3.6%
3rd Qtr.	1.3%	3.3%	9.1%	2.4%	6.4%
4th Qtr.	4.1%	4.0%	8.7%	0.4%	-1.2%
2012					
1st Qtr.	2.0%	4.5%	8.3%	3.2%	2.0%
2nd Qtr.	1.3%	4.7%	8.2%	0.0%	-2.8%
3rd Qtr.	3.1%	3.4%	8.1%	4.0%	9.6%
4th Qtr.	0.4%	2.8%	7.8%	0.0%	-3.6%
2013					
1st Qtr.	1.8%	2.4%	7.7%	2.0%	0.8%
2nd Qtr.	1.7%		7.6%		

*GDP=Gross Domestic Product

Source: Council of Economic Advisors, Economic Indicators, various issues.

INTEREST RATES

Year	Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aaa	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
1975 - 1982 Cycle							
1975	7.86%	5.84%	7.99%	9.03%	9.44%	10.09%	10.96%
1976	6.84%	4.99%	7.61%	8.63%	8.92%	9.29%	9.82%
1977	6.83%	5.27%	7.42%	8.19%	8.43%	8.61%	9.06%
1978	9.06%	7.22%	8.41%	8.87%	9.10%	9.29%	9.62%
1979	12.67%	10.04%	9.44%	9.86%	10.22%	10.49%	10.96%
1980	15.27%	11.51%	11.46%	12.30%	13.00%	13.34%	13.95%
1981	18.89%	14.03%	13.93%	14.64%	15.30%	15.95%	16.60%
1982	14.86%	10.69%	13.00%	14.22%	14.79%	15.86%	16.45%
1983 - 1991 Cycle							
1983	10.79%	8.63%	11.10%	12.52%	12.83%	13.66%	14.20%
1984	12.04%	9.58%	12.44%	12.72%	13.66%	14.03%	14.53%
1985	9.93%	7.48%	10.62%	11.68%	12.06%	12.47%	12.96%
1986	8.33%	5.98%	7.68%	8.92%	9.30%	9.58%	10.00%
1987	8.21%	5.82%	8.39%	9.52%	9.77%	10.10%	10.53%
1988	9.32%	6.69%	8.85%	10.05%	10.26%	10.49%	11.00%
1989	10.87%	8.12%	8.49%	9.32%	9.56%	9.77%	9.97%
1990	10.01%	7.51%	8.55%	9.45%	9.65%	9.86%	10.06%
1991	8.46%	5.42%	7.86%	8.85%	9.09%	9.36%	9.55%
1992 - 2001 Cycle							
1992	6.25%	3.45%	7.01%	8.19%	8.55%	8.69%	8.86%
1993	6.00%	3.02%	5.87%	7.29%	7.44%	7.59%	7.91%
1994	7.15%	4.29%	7.09%	8.07%	8.21%	8.31%	8.63%
1995	8.83%	5.51%	6.57%	7.68%	7.77%	7.89%	8.29%
1996	8.27%	5.02%	6.44%	7.48%	7.57%	7.75%	8.16%
1997	8.44%	5.07%	6.35%	7.43%	7.54%	7.60%	7.95%
1998	8.35%	4.81%	5.26%	6.77%	6.91%	7.04%	7.26%
1999	8.00%	4.66%	5.65%	7.21%	7.51%	7.62%	7.88%
2000	9.23%	5.85%	6.03%	7.88%	8.06%	8.24%	8.36%
2001	6.91%	3.44%	5.02%	7.47%	7.59%	7.78%	8.02%
2002 - 2009 Cycle							
2002	4.67%	1.62%	4.61%	[1]	7.19%	7.37%	8.02%
2003	4.12%	1.01%	4.01%		6.40%	6.58%	6.84%
2004	4.34%	1.38%	4.27%		6.04%	6.16%	6.40%
2005	6.19%	3.16%	4.29%		5.44%	5.65%	5.93%
2006	7.96%	4.73%	4.80%		5.84%	6.07%	6.32%
2007	8.05%	4.41%	4.63%		5.94%	6.07%	6.33%
2008	5.09%	1.48%	3.66%		6.18%	6.53%	7.25%
2009	3.25%	0.16%	3.26%		5.75%	6.04%	7.06%
Current Cycle							
2010	3.25%	0.14%	3.22%		5.24%	5.46%	5.96%
2011	3.25%	0.06%	2.78%		4.78%	5.04%	5.57%
2012	3.25%	0.09%	1.80%		3.83%	4.13%	4.86%

[1] Note: Moody's has not published Aaa utility bond yields since 2001.

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal
Reserve Bulletin; various issues.

INTEREST RATES

	Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aaa [1]	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
2007							
Jan	8.25%	4.96%	4.76%		5.78%	5.96%	6.16%
Feb	8.25%	5.02%	4.72%		5.73%	5.90%	6.10%
Mar	8.25%	4.97%	4.56%		5.66%	5.85%	6.10%
Apr	8.25%	4.88%	4.69%		5.83%	5.97%	6.24%
May	8.25%	4.77%	4.75%		5.86%	5.99%	6.23%
June	8.25%	4.63%	5.10%		6.18%	6.30%	6.54%
July	8.25%	4.84%	5.00%		6.11%	6.25%	6.49%
Aug	8.25%	4.34%	4.67%		6.11%	6.24%	6.51%
Sept	7.75%	4.01%	4.52%		6.10%	6.18%	6.45%
Oct	7.50%	3.97%	4.53%		6.04%	6.11%	6.36%
Nov	7.50%	3.49%	4.15%		5.87%	5.97%	6.27%
Dec	7.25%	3.08%	4.10%		6.03%	6.16%	6.51%
2008							
Jan	6.00%	2.86%	3.74%		5.87%	6.02%	6.35%
Feb	6.00%	2.21%	3.74%		6.04%	6.21%	6.60%
Mar	5.25%	1.38%	3.51%		5.99%	6.21%	6.68%
Apr	5.00%	1.32%	3.68%		5.99%	6.29%	6.82%
May	5.00%	1.71%	3.88%		6.07%	6.27%	6.79%
June	5.00%	1.90%	4.10%		6.19%	6.38%	6.93%
July	5.00%	1.72%	4.01%		6.13%	6.40%	6.97%
Aug	5.00%	1.79%	3.89%		6.09%	6.37%	6.98%
Sept	5.00%	1.46%	3.69%		6.13%	6.49%	7.15%
Oct	4.00%	0.84%	3.81%		6.95%	7.56%	8.58%
Nov	4.00%	0.30%	3.53%		6.83%	7.60%	8.98%
Dec	3.25%	0.04%	2.42%		5.93%	6.54%	8.13%
2009							
Jan	3.25%	0.12%	2.52%		6.01%	6.39%	7.90%
Feb	3.25%	0.31%	2.87%		6.11%	6.30%	7.74%
Mar	3.25%	0.25%	2.82%		6.14%	6.42%	8.00%
Apr	3.25%	0.17%	2.93%		6.20%	6.48%	8.03%
May	3.25%	0.15%	3.29%		6.23%	6.49%	7.76%
June	3.25%	0.17%	3.72%		6.13%	6.20%	7.30%
July	3.25%	0.19%	3.56%		5.63%	5.97%	6.87%
Aug	3.25%	0.18%	3.59%		5.33%	5.71%	6.36%
Sept	3.25%	0.13%	3.40%		5.15%	5.53%	6.12%
Oct	3.25%	0.08%	3.39%		5.23%	5.55%	6.14%
Nov	3.25%	0.05%	3.40%		5.33%	5.64%	6.18%
Dec	3.25%	0.07%	3.59%		5.52%	5.79%	6.26%
2010							
Jan	3.25%	0.06%	3.73%		5.55%	5.77%	6.16%
Feb	3.25%	0.10%	3.69%		5.69%	5.87%	6.25%
Mar	3.25%	0.15%	3.73%		5.64%	5.84%	6.22%
Apr	3.25%	0.15%	3.85%		5.62%	5.81%	6.19%
May	3.25%	0.16%	3.42%		5.29%	5.50%	5.97%
June	3.25%	0.12%	3.20%		5.22%	5.46%	6.18%
July	3.25%	0.16%	3.01%		4.99%	5.26%	5.98%
Aug	3.25%	0.15%	2.70%		4.75%	5.01%	5.55%
Sept	3.25%	0.15%	2.65%		4.74%	5.01%	5.53%
Oct	3.25%	0.13%	2.54%		4.89%	5.10%	5.62%
Nov	3.25%	0.13%	2.76%		5.12%	5.37%	5.85%
Dec	3.25%	0.15%	3.29%		5.32%	5.56%	6.04%
2011							
Jan	3.25%	0.15%	3.39%		5.29%	5.57%	6.06%
Feb	3.25%	0.14%	3.58%		5.42%	5.68%	6.10%
Mar	3.25%	0.11%	3.41%		5.33%	5.56%	5.97%
Apr	3.25%	0.06%	3.46%		5.32%	5.55%	5.98%
May	3.25%	0.04%	3.17%		5.08%	5.32%	5.74%
June	3.25%	0.04%	3.00%		5.04%	5.26%	5.67%
July	3.25%	0.03%	3.00%		5.05%	5.27%	5.70%
Aug	3.25%	0.05%	2.30%		4.44%	4.69%	5.22%
Sept	3.25%	0.02%	1.98%		4.24%	4.48%	5.11%
Oct	3.25%	0.02%	2.15%		4.21%	4.52%	5.24%
Nov	3.25%	0.01%	2.01%		3.92%	4.25%	4.93%
Dec	3.25%	0.02%	1.98%		4.00%	4.33%	5.07%
2012							
Jan	3.25%	0.02%	1.97%		4.03%	4.34%	5.06%
Feb	3.25%	0.08%	1.97%		4.02%	4.36%	5.02%
Mar	3.25%	0.09%	2.17%		4.16%	4.48%	5.13%
Apr	3.25%	0.08%	2.05%		4.10%	4.40%	5.11%
May	3.25%	0.09%	1.80%		3.92%	4.20%	4.97%
June	3.25%	0.09%	1.62%		3.79%	4.08%	4.91%
July	3.25%	0.10%	1.53%		3.58%	3.93%	4.85%
Aug	3.25%	0.11%	1.68%		3.65%	4.00%	4.88%
Sept	3.25%	0.10%	1.72%		3.69%	4.02%	4.81%
Oct	3.25%	0.10%	1.75%		3.68%	3.91%	4.54%
Nov	3.25%	0.11%	1.65%		3.60%	3.84%	4.42%
Dec	3.25%	0.08%	1.72%		3.75%	4.00%	4.56%
2013							
Jan	3.25%	0.07%	1.91%		3.90%	4.15%	4.66%
Feb	3.25%	0.10%	1.98%		3.95%	4.18%	4.74%
Mar	3.25%	0.09%	1.96%		3.90%	4.15%	4.66%
Apr	3.25%	0.06%	1.76%		3.74%	4.00%	4.49%
May	3.25%	0.05%	1.93%		3.91%	4.17%	4.65%
June	3.25%	0.05%	2.30%		4.27%	4.53%	5.08%
July	3.25%	0.04%	2.58%		4.44%	4.68%	5.21%

[1] Note: Moody's has not published Aaa utility bond yields since 2001.

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal Reserve Bulletin; various issues.

STOCK PRICE INDICATORS

	S&P Composite [1]	NASDAQ Composite [1]	DJIA	S&P D/P	S&P E/P
1975 - 1982 Cycle					
1975			802.49	4.31%	9.15%
1976			974.92	3.77%	8.90%
1977			894.63	4.62%	10.79%
1978			820.23	5.28%	12.03%
1979			844.40	5.47%	13.46%
1980			891.41	5.26%	12.66%
1981			932.92	5.20%	11.96%
1982			884.36	5.81%	11.60%
1983 - 1991 Cycle					
1983			1,190.34	4.40%	8.03%
1984			1,178.48	4.64%	10.02%
1985			1,328.23	4.25%	8.12%
1986			1,792.76	3.49%	6.09%
1987			2,275.99	3.08%	5.48%
1988	[1]	[1]	2,060.82	3.64%	8.01%
1989	322.84		2,508.91	3.45%	7.41%
1990	334.59		2,678.94	3.61%	6.47%
1991	376.18	491.69	2,929.33	3.24%	4.79%
1992 - 2001 Cycle					
1992	415.74	$599.26	3,284.29	2.99%	4.22%
1993	451.21	715.16	3,522.06	2.78%	4.46%
1994	460.42	751.65	3,793.77	2.82%	5.83%
1995	541.72	925.19	4,493.76	2.56%	6.09%
1996	670.50	1,164.96	5,742.89	2.19%	5.24%
1997	873.43	1,469.49	7,441.15	1.77%	4.57%
1998	1,085.50	1,794.91	8,625.52	1.49%	3.46%
1999	1,327.33	2,728.15	10,464.88	1.25%	3.17%
2000	1,427.22	2,783.67	10,734.90	1.15%	3.63%
2001	1,194.18	2,035.00	10,189.13	1.32%	2.95%
2002 - 2009 Cycle					
2002	993.94	1,539.73	9,226.43	1.61%	2.92%
2003	965.23	1,647.17	8,993.59	1.77%	3.84%
2004	1,130.65	1,986.53	10,317.39	1.72%	4.89%
2005	1,207.23	2,099.32	10,547.67	1.83%	5.36%
2006	1,310.46	2,263.41	11,408.67	1.87%	5.78%
2007	1,477.19	2,578.47	13,169.98	1.86%	5.29%
2008	1,220.04	2,161.65	11,252.62	2.37%	3.54%
2009	948.05	1,845.38	8,876.15	2.40%	1.86%
Current Cycle					
2010	1,139.97	2,349.89	10,662.80	1.98%	6.04%
2011	1,268.89	2,677.44	11,966.36	2.05%	6.77%
2012	1,379.35	2,965.56	12,967.08	2.24%	6.20%

[1] Note: this source did not publish the S&P Composite prior to 1988 and the NASDAQ Composite prior to 1991.

Source: Council of Economic Advisors, Economic Indicators, various issues.

STOCK PRICE INDICATORS

	S&P Composite	NASDAQ Composite	DJIA	S&P D/P	S&P E/P
2004					
1st Qtr.	1,133.29	2,041.95	10,488.43	1.64%	4.62%
2nd Qtr.	1,122.87	1,984.13	10,289.04	1.71%	4.92%
3rd Qtr.	1,104.15	1,872.90	10,129.85	1.79%	5.18%
4th Qtr.	1,162.07	2,050.22	10,362.25	1.75%	4.83%
2005					
1st Qtr.	1,191.98	2,056.01	10,648.48	1.77%	5.11%
2nd Qtr.	1,181.65	2,012.24	10,382.35	1.85%	5.32%
3rd Qtr.	1,225.91	2,144.61	10,532.24	1.83%	5.42%
4th Qtr.	1,262.07	2,246.09	10,827.79	1.86%	5.60%
2006					
1st Qtr.	1,283.04	2,287.97	10,996.04	1.85%	5.61%
2nd Qtr.	1,281.77	2,240.46	11,188.84	1.90%	5.86%
3rd Qtr.	1,288.40	2,141.97	11,274.49	1.91%	5.88%
4th Qtr.	1,389.48	2,390.26	12,175.30	1.81%	5.75%
2007					
1st Qtr.	1,425.30	2,444.85	12,470.97	1.84%	5.85%
2nd Qtr.	1,496.43	2,552.37	13,214.26	1.82%	5.65%
3rd Qtr.	1,490.81	2,609.68	13,488.43	1.86%	5.15%
4th Qtr.	1,494.09	2,701.59	13,502.95	1.91%	4.51%
2008					
1st Qtr.	1,350.19	2,332.91	12,383.86	2.11%	4.55%
2nd Qtr.	1,371.65	2,426.26	12,508.59	2.10%	4.05%
3rd Qtr.	1,251.94	2,290.87	11,322.40	2.29%	3.94%
4th Qtr.	909.80	1,599.64	8,795.61	2.98%	1.65%
2009					
1st Qtr.	809.31	1,485.14	7,774.06	3.00%	0.86%
2nd Qtr.	892.23	1,731.41	8,327.83	2.45%	0.82%
3rd Qtr.	996.68	1,985.25	9,229.93	2.16%	1.19%
4th Qtr.	1,088.70	2,162.33	10,172.78	1.99%	4.57%
2010					
1st Qtr.	1,121.60	2,274.88	10,454.42	1.94%	5.21%
2nd Qtr.	1,135.25	2,343.40	10,570.54	1.97%	6.51%
3rd Qtr.	1,096.39	2,237.97	10,390.24	2.09%	6.30%
4th Qtr.	1,204.00	2,534.62	11,236.02	1.95%	6.15%
2011					
1st Qtr.	1,302.74	2,741.01	12,024.62	1.85%	6.13%
2nd Qtr.	1,319.04	2,766.64	12,370.73	1.97%	6.35%
3rd Qtr.	1,237.12	2,613.11	11,671.47	2.15%	7.69%
4th Qtr.	1,225.65	2,600.91	11,798.65	2.25%	6.91%
2012					
1st Qtr.	1,347.44	2,902.90	12,839.80	2.12%	6.29%
2nd Qtr.	1,350.39	2,928.62	12,765.58	2.30%	6.45%
3rd Qtr.	1,402.21	3,029.86	13,118.72	2.27%	6.00%
4th Qtr.	1,418.21	3,001.69	13,142.91	2.28%	6.07%
2013					
1st Qtr.	1,514.41	3,177.10	14,000.30	2.21%	5.59%
2nd Qtr.	1,609.77	3,369.49	14,961.28	2.15%	

Source: Council of Economic Advisors, Economic Indicators, various issues.

DELMARVA POWER & LIGHT COMPANY
DEBT RATINGS

Date	Senior Unsecured Debt			Senior Secured Debt		
	Moody's	S&P	Fitch	Moody's	S&P	Fitch
2007	Baa2	BBB-	A-	Baa1	BBB+	A
2008	Baa2	BBB	A-	Baa1	A-	A
2009	Baa2	BBB	A-	A3	A-	A
2010	Baa2	BBB+	A-	A3	A	A
2011	Baa2	BBB+	A-	A3	A	A
2012	Baa2	BBB+	A-	A3	A	A
2013	Baa2	BBB+	A-	A3	A	A

Source: Response to Request No. AG-COC-6

PEPCO HOLDINGS AND REGULATED SUBSIDIARIES
DEBT RATINGS

Rating Agency	Delmarva Power & Light Co	Potomac Electric Power Co	Atlantic City Electric Co	Pepco Holdings
Senior Unsecured Debt				
Standard & Poor's	BBB+	BBB+	BBB+	BBB
Moody's	Baa2	Baa2	Baa2	Baa3
Fitch	A-	A-	BBB+	BBB
Senior Secured Debt				
Standard & Poor's	A	A	A	
Moody's	A3	A3	A3	
Fitch	A	A	A-	

Source: Response to Request No. AG-COC-6

DELMARVA POWER & LIGHT COMPANY
CAPITAL STRUCTURE RATIOS
2008 - 2012
($000)

YEAR	COMMON EQUITY	LONG-TERM DEBT	SHORT-TERM DEBT
2008	$752,436 44.8% 49.2%	$775,513 46.2% 50.8%	$150,000 8.9%
2009	$807,496 50.7% 50.7%	$784,948 49.3% 49.3%	$0 0.0%
2010	$840,213 49.3% 49.3%	$862,947 50.7% 50.7%	$0 0.0%
2011	$851,342 48.3% 49.6%	$864,769 49.0% 50.4%	$47,000 2.7%
2012	$984,604 48.4% 49.2%	$1,015,954 50.0% 50.8%	$32,000 1.6%

Note: Percentages may not total 100.0% due to rounding.

Source: Response to AG-COC-4.

PEPCO HOLDINGS, INC.
CAPITAL STRUCTURE RATIOS
2008 - 2012
($000)

YEAR	COMMON EQUITY	PREFERRED STOCK	LONG-TERM DEBT	SHORT-TERM DEBT
2008	$4,188,842	$6,215	$5,043,117	$325,000
	43.8%	0.1%	52.7%	3.4%
	45.3%	0.1%	54.6%	
2009	$4,254,824	$6,215	$5,209,426	$384,000
	43.2%	0.1%	52.9%	3.9%
	44.9%	0.1%	55.0%	
2010	$4,228,874	$6,215	$3,802,483	$388,000
	50.2%	0.1%	45.1%	4.6%
	52.6%	0.1%	47.3%	
2011	$4,333,932		$4,003,211	$586,000
	48.6%		44.9%	6.6%
	52.0%		48.0%	
2012	$4,446,000		$4,316,934	$837,000
	46.3%		45.0%	8.7%
	50.7%		49.3%	

Note: Percentages may not total 100.0% due to rounding.

Source: Response to AG-COC-4.

PEPCO HOLDINGS, INC. AND SUBSIDIARIES
CAPITAL STRUCTURE RATIOS
December 31, 2012
($000)

COMPANY	COMMON EQUITY	LONG-TERM DEBT	SHORT-TERM DEBT
Delmarva Power & Light Co.	$984,604,304 49.2% 49.2%	$1,015,954,082 50.8% 50.8%	$32,000 0.0%
Potomac Electric Power Co.	$1,643,194 46.6% 49.8%	$1,655,194 46.9% 50.2%	$231,000 6.5%
Atlantic City Electric Co.	$800,998 45.9% 48.9%	$835,738 47.8% 51.1%	$110,000 6.3%
Pepco Holdings, Inc.	$4,446,000 46.3% 50.7%	$4,316,934 45.0% 49.3%	$837,000 8.7%

Note: Percentages may not total 100.0% due to rounding.

Source: Response to AG-COC-5.

AUS UTILITY REPORTS
ELECTRIC UTILITY GROUPS
AVERAGE COMMON EQUITY RATIOS

Year	Electric	Combination Electric and Gas
2008	45%	43%
2009	46%	45%
2010	46%	46%
2011	47%	46%
2012	47%	46%

Note: Averages include short-term debt.

Source: AUS Utility Reports.

PROXY COMPANIES
BASIS FOR SELECTION

Company	Market Cap ($000) (1)	Percent Revenues Electric (2)	Common Equity Ratio (3)	Value Line Safety Rank (4)	S&P Stock Ranking (5)	Moody's/ S&P Bond Rating (6)
Pepco Holdings	$4,500,000	83%	51%	3	B	Baa1/Baa2/A-/BBB+
Delmarva Power & Light						A3/A
Proxy Group						
ALLETE	$1,900,000	91%	56%	2	B	A2/A-
Alliant Energy	$5,400,000	84%	48%	2	B	A2/A3/A-
Avista Corp.	$1,600,000	63%	49%	2	A-	A3/A-
Black Hills Corp	$2,100,000	52%	57%	3	B	A3/BBB+
IDACORP	$2,400,000	100%	55%	3	B+	A2/A-
MGE Eneregy	$1,300,000	72%	62%	1	B+	A1/AA-
Northwestern Energy	$1,600,000	75%	46%	3		A2/A-
Portland General Electric	$2,400,000	100%	53%	2		A3/A-
TECO Eneregy	$3,700,000	65%	44%	2	B	A3/BBB+
Westar Energy	$4,000,000	100%	49%	2	B+	A3/BBB+
Wisconsin Energy	$9,500,000	75%	48%	1	A-	A2/A3/A-/BBB+

Criteria For Selection:
Market Cap of $1 billion to $10 billion.
Percent electric revenues of 50% or greater
Common equity ratio of 40% or greater
Value Line Safety Rank of 1, 2, or 3
S&P Stock Ranking of A or B
Moody's or S&P Bond Rating of A..
Currently pays common stock dividends.
Not currently involved in major merger.

Sources:
(1) Value Line - May 24, 2013, June 21, 2013 and August 2, 2013 editions.
(2) AUS Utility Reports, May, 2013 edition, 2012 data.
(3) Value Line - May 24, 2013, June 21, 2013 and August 2, 2013 editions, excludes short-term debt.
(4) Value Line - May 24, 2013, June 21, 2013 and August 4, 2013 editions.
(5) Value Line - May 24, 2013, June 21, 2013 and August2, 2013 editions.
(6) AUS Utility Reports, May, 2013 edition.

PROXY COMPANIES
DIVIDEND YIELD

COMPANY	Qtr DPS	May - July, 2013				YIELD
		DPS	HIGH	LOW	AVERAGE	
Parcell Proxy Group						
ALLETE	$0.475	$1.90	$54.13	$46.85	$50.49	3.76%
Alliant Energy	$0.470	$1.88	$54.18	$46.79	$50.49	3.72%
Avista Corp.	$0.305	$1.22	$29.26	$25.68	$27.47	4.44%
Black Hills Corp	$0.380	$1.52	$54.12	$45.07	$49.60	3.06%
IDACORP	$0.380	$1.52	$53.10	$46.03	$49.57	3.07%
MGE Eneregy	$0.395	$1.58	$60.69	$52.12	$56.41	2.80%
Northwestern Energy	$0.380	$1.52	$44.33	$38.12	$41.23	3.69%
Pepco Holdings	$0.270	$1.08	$22.72	$19.19	$20.96	5.15%
Portland General Electric	$0.275	$1.10	$32.91	$29.14	$31.03	3.55%
TECO Eneregy	$0.220	$0.88	$19.22	$16.40	$17.81	4.94%
Westar Energy	$0.340	$1.36	$34.92	$30.13	$32.53	4.18%
Wisconsin Energy	$0.340	$1.36	$44.84	$39.04	$41.94	3.24%
Average						**3.80%**
Hevert Proxy Group						
American Electric Power Co	$0.490	$1.96	$51.60	$42.83	$47.22	4.15%
Cleco Corp	$0.362	$1.45	$49.40	$43.75	$46.58	3.11%
Empire District Electric	$0.250	$1.00	$24.32	$21.26	$22.79	4.39%
Great Plains Energy	$0.217	$0.87	$24.65	$21.73	$23.19	3.74%
Hawaiian Electric Industries	$0.310	$1.24	$28.24	$23.84	$26.04	4.76%
IDACORP	$0.380	$1.52	$53.10	$46.03	$49.57	3.07%
Otter Tail Corp.	$0.297	$1.19	$31.88	$26.50	$29.19	4.07%
Pinnacle West Cajpital	$0.545	$2.18	$61.89	$51.56	$56.73	3.84%
PNM Resources, Inc.	$0.165	$0.66	$24.14	$21.11	$22.63	2.92%
Portland General Electric	$0.275	$1.10	$32.91	$29.14	$31.03	3.55%
Southern Company	$0.507	$2.03	$48.30	$42.32	$45.31	4.48%
Westar Energy	$0.340	$1.36	$34.92	$30.13	$32.53	4.18%
Average						**3.85%**

Source: Yahoo! Finance.

PROXY COMPANIES
RETENTION GROWTH RATES

COMPANY	2008	2009	2010	2011	2012	Average	2013	2014	2016-'18	Average
Parcell Proxy Group										
ALLETE	3.9%	0.5%	1.5%	2.9%	2.3%	2.2%	2.5%	2.5%	3.5%	2.8%
Alliant Energy	3.8%	0.9%	3.8%	3.3%	3.9%	3.1%	4.5%	4.5%	4.5%	4.5%
Avista Corp.	3.7%	4.1%	3.3%	3.1%	0.8%	3.0%	2.5%	2.5%	3.0%	2.7%
Black Hills Corp	0.0%	3.2%	0.7%	0.0%	1.8%	1.1%	3.0%	3.5%	4.0%	3.5%
IDACORP	3.4%	4.8%	5.5%	6.5%	5.7%	5.2%	4.5%	4.5%	4.0%	4.3%
MGE Eneregy	4.4%	3.4%	4.4%	4.7%	4.9%	4.4%	5.5%	5.5%	5.5%	5.5%
Northwestern Energy	2.3%	3.2%	3.5%	4.7%	3.2%	3.4%	4.0%	4.0%	3.5%	3.8%
Pepco Holdings	4.2%	0.0%	0.8%	0.3%	0.8%	1.2%	0.5%	1.0%	2.5%	1.3%
Portland General Electric	2.0%	1.5%	3.0%	4.1%	3.5%	2.8%	3.0%	3.0%	3.5%	3.2%
TECO Eneregy	0.0%	2.1%	3.1%	3.9%	2.4%	2.3%	0.5%	2.0%	4.0%	2.2%
Westar Energy	1.2%	0.8%	3.1%	2.7%	4.0%	2.4%	3.5%	3.5%	4.5%	3.8%
Wisconsin Energy	7.0%	6.2%	7.0%	6.8%	6.5%	6.7%	5.5%	5.5%	5.0%	5.3%
Average						3.2%				3.6%
Hevert Proxy Group										
American Electric Power Co	5.1%	4.6%	3.1%	4.2%	3.5%	4.1%	3.5%	4.0%	4.0%	3.8%
Cleco Corp	4.5%	4.7%	6.1%	6.3%	5.7%	5.5%	4.0%	5.0%	4.5%	4.5%
Empire District Electric	0.0%	0.0%	0.0%	4.1%	1.9%	1.2%	2.5%	2.5%	2.5%	2.5%
Great Plains Energy	0.0%	0.9%	3.4%	2.0%	2.2%	1.7%	3.0%	3.0%	3.0%	3.0%
Hawaiian Electric Industries	0.5%	0.0%	1.4%	2.1%	4.2%	1.6%	2.0%	2.0%	2.0%	2.0%
IDACORP	3.4%	4.8%	5.5%	6.5%	5.7%	5.2%	4.5%	4.5%	4.0%	4.3%
Otter Tail Corp.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.5%	4.0%	2.5%
Pinnacle West Cajpital	0.3%	0.7%	3.1%	2.8%	4.1%	2.2%	4.0%	4.0%	4.0%	4.0%
PNM Resources, Inc.	0.0%	0.4%	2.2%	3.3%	3.8%	1.9%	4.0%	3.5%	4.5%	4.0%
Portland General Electric	2.0%	1.5%	3.0%	4.1%	3.5%	2.8%	3.0%	3.0%	3.5%	3.2%
Southern Company	3.5%	3.2%	3.0%	3.4%	3.6%	3.3%	3.5%	3.5%	4.0%	3.7%
Westar Energy	1.2%	0.8%	3.1%	2.7%	4.0%	2.4%	3.5%	3.5%	4.5%	3.8%
Average						2.7%				3.4%

Source: Value Line Investment Survey.

PROXY COMPANIES
PER SHARE GROWTH RATES

COMPANY	5-Year Historic Growth Rates				Est'd '10-'12 to '16-'18 Growth Rates			
	EPS	DPS	BVPS	Average	EPS	DPS	BVPS	Average
Parcell Proxy Group								
ALLETE	-2.5%	4.5%	5.5%	2.5%	7.0%	3.5%	4.0%	4.8%
Alliant Energy	4.0%	8.0%	3.5%	5.2%	5.0%	4.5%	4.0%	4.5%
Avista Corp.	8.5%	14.0%	4.0%	8.8%	4.0%	4.5%	3.0%	3.8%
Black Hills Corp	-8.0%	2.0%	3.0%	-1.0%	11.5%	2.5%	3.0%	5.7%
IDACORP	10.0%	1.0%	5.5%	5.5%	2.0%	7.0%	4.5%	4.5%
MGE Eneregy	6.0%	2.0%	5.5%	4.5%	4.5%	3.5%	5.0%	4.3%
Northwestern Energy	9.0%	4.0%	2.5%	5.2%	4.5%	4.0%	4.5%	4.3%
Pepco Holdings	-4.5%	1.5%	0.5%	-0.8%	6.0%	1.0%	2.0%	3.0%
Portland General Electric	4.0%	14.5%	2.0%	6.8%	3.5%	3.0%	3.5%	3.3%
TECO Eneregy	0.5%	2.0%	4.0%	2.2%	3.5%	2.0%	2.5%	2.7%
Westar Energy	1.5%	5.0%	4.5%	3.7%	6.0%	3.0%	5.0%	4.7%
Wisconsin Energy	10.0%	17.0%	7.0%	11.3%	5.5%	12.0%	3.5%	7.0%
Average				**4.5%**				**4.4%**
Hevert Proxy Group								
American Electric Power Co	1.0%	4.0%	4.5%	3.2%	4.5%	4.0%	4.0%	4.2%
Cleco Corp	13.0%	4.5%	9.0%	8.8%	5.5%	10.0%	5.0%	6.8%
Empire District Electric	2.0%	-5.5%	1.0%	-0.8%	5.0%	3.5%	2.5%	3.7%
Great Plains Energy	-6.0%	-12.5%	5.0%	-4.5%	6.5%	6.0%	2.5%	5.0%
Hawaiian Electric Industries	2.0%	0.0%	2.0%	1.3%	3.5%	1.0%	4.5%	3.0%
IDACORP	10.0%	1.0%	5.5%	5.5%	2.0%	7.0%	4.5%	4.5%
Otter Tail Corp.	-18.5%	0.5%	-1.0%	-6.3%	21.5%	1.5%	2.0%	8.3%
Pinnacle West Cajpital	2.5%	2.5%		2.5%	5.0%	2.0%	3.5%	3.5%
PNM Resources, Inc.	-4.0%	-9.0%	-2.0%	-5.0%	12.0%	12.5%	3.5%	9.3%
Portland General Electric	4.0%	14.5%	2.0%	6.8%	3.5%	3.0%	3.5%	3.3%
Southern Company	3.0%	4.0%	5.5%	4.2%	4.5%	3.5%	4.0%	4.0%
Westar Energy	1.5%	5.0%	4.5%	3.7%	6.0%	3.0%	5.0%	4.7%
Average				**1.6%**				**5.0%**

Source: Value Line Investment Survey.

PROXY COMPANIES
DCF COST RATES

COMPANY	ADJUSTED YIELD	HISTORIC RETENTION GROWTH	PROSPECTIVE RETENTION GROWTH	HISTORIC PER SHARE GROWTH	PROSPECTIVE PER SHARE GROWTH	FIRST CALL EPS GROWTH	AVERAGE GROWTH	DCF RATES
Parcell Proxy Group								
ALLETE	3.8%	2.2%	2.8%	2.5%	4.8%	6.00%	3.7%	7.5%
Alliant Energy	3.8%	3.1%	4.5%	5.2%	4.5%	5.90%	4.6%	8.5%
Avista Corp.	4.5%	3.0%	2.7%	8.8%	3.8%	4.50%	4.6%	9.1%
Black Hills Corp	3.1%	1.1%	3.5%		5.7%	5.00%	3.8%	7.0%
IDACORP	3.1%	5.2%	4.3%	5.5%	4.5%	4.00%	4.7%	7.8%
MGE Eneregy	2.9%	4.4%	5.5%	4.5%	4.3%	4.00%	4.5%	7.4%
Northwestern Energy	3.8%	3.4%	3.8%	5.2%	4.3%	4.00%	4.1%	7.9%
Pepco Holdings	5.2%	1.2%	1.3%		3.0%	4.23%	2.4%	7.7%
Portland General Electric	3.6%	2.8%	3.2%	6.8%	3.3%	6.52%	4.5%	8.2%
TECO Eneregy	5.0%	2.3%	2.2%	2.2%	2.7%	2.74%	2.4%	7.4%
Westar Energy	4.3%	2.4%	3.8%	3.7%	4.7%	3.90%	3.7%	7.9%
Wisconsin Energy	3.4%	6.7%	5.3%	11.3%	7.0%	4.89%	7.1%	10.4%
Mean	3.9%	3.2%	3.6%	5.6%	4.4%	4.6%	4.2%	**8.1%**
Median	3.8%	2.9%	3.7%	5.2%	4.4%	4.4%	4.3%	**7.9%**
Composite - Mean		**7.0%**	7.5%	**9.4%**	8.3%	8.5%	8.1%	
Composite - Median		**6.7%**	7.5%	**9.0%**	8.2%	8.2%	8.1%	
Hevert Proxy Group								
American Electric Power Co	4.2%	4.1%	3.8%	3.2%	4.2%	3.81%	3.8%	8.0%
Cleco Corp	3.2%	5.5%	4.5%	8.8%	6.8%	8.00%	6.7%	9.9%
Empire District Electric	4.4%	1.2%	2.5%		3.7%	3.00%	2.6%	7.0%
Great Plains Energy	3.8%	1.7%	3.0%		5.0%	6.26%	4.0%	7.8%
Hawaiian Electric Industries	4.8%	1.6%	2.0%	1.3%	3.0%	2.40%	2.1%	6.9%
IDACORP	3.1%	5.2%	4.3%	5.5%	4.5%	4.00%	4.7%	7.8%
Otter Tail Corp.	4.2%		2.5%		8.3%	6.00%	5.6%	9.8%
Pinnacle West Cajpital	3.9%	2.2%	4.0%	2.5%	3.5%	5.45%	3.5%	7.4%
PNM Resources, Inc.	3.0%	1.9%	4.0%		9.3%	6.43%	5.4%	8.4%
Portland General Electric	3.6%	2.8%	3.2%	6.8%	3.3%	6.52%	4.5%	8.2%
Southern Company	4.6%	3.3%	3.7%	4.2%	4.0%	4.60%	4.0%	8.5%
Westar Energy	4.3%	2.4%	3.8%	3.7%	4.7%	3.90%	3.7%	7.9%
Mean	3.9%	2.9%	3.4%	4.5%	5.0%	5.0%	4.2%	**8.2%**
Median	4.0%	2.4%	3.8%	3.9%	4.3%	5.0%	4.0%	**8.0%**
Composite - Mean		**6.8%**	7.4%	8.4%	**9.0%**	**9.0%**	8.2%	
Composite - Median		**6.4%**	7.8%	8.0%	8.4%	**9.1%**	8.0%	

Note: negative values not used in calculations.

Sources: Prior pages of this schedule.

STANDARD & POOR'S 500 COMPOSITE
20-YEAR U.S. TREASURY BOND YIELDS
RISK PREMIUMS

Year	EPS	BVPS	ROE	20-YEAR T-BOND YIELD	RISK PREMIUM
1977		$79.07			
1978	$12.33	$85.35	15.00%	7.90%	7.10%
1979	$14.86	$94.27	16.55%	8.86%	7.69%
1980	$14.82	$102.48	15.06%	9.97%	5.09%
1981	$15.36	$109.43	14.50%	11.55%	2.95%
1982	$12.64	$112.46	11.39%	13.50%	-2.11%
1983	$14.03	$116.93	12.23%	10.38%	1.85%
1984	$16.64	$122.47	13.90%	11.74%	2.16%
1985	$14.61	$125.20	11.80%	11.25%	0.55%
1986	$14.48	$126.82	11.49%	8.98%	2.51%
1987	$17.50	$134.04	13.42%	7.92%	5.50%
1988	$23.75	$141.32	17.25%	8.97%	8.28%
1989	$22.87	$147.26	15.85%	8.81%	7.04%
1990	$21.73	$153.01	14.47%	8.19%	6.28%
1991	$16.29	$158.85	10.45%	8.22%	2.23%
1992	$19.09	$149.74	12.37%	7.29%	5.08%
1993	$21.89	$180.88	13.24%	7.17%	6.07%
1994	$30.60	$193.06	16.37%	6.59%	9.78%
1995	$33.96	$215.51	16.62%	7.60%	9.02%
1996	$38.73	$237.08	17.11%	6.18%	10.93%
1997	$39.72	$249.52	16.33%	6.64%	9.69%
1998	$37.71	$266.40	14.62%	5.83%	8.79%
1999	$48.17	$290.68	17.29%	5.57%	11.72%
2000	$50.00	$325.80	16.22%	6.50%	9.72%
2001	$24.69	$338.37	7.43%	5.53%	1.90%
2002	$27.59	$321.72	8.36%	5.59%	2.77%
2003	$48.73	$367.17	14.15%	4.80%	9.35%
2004	$58.55	$414.75	14.98%	5.02%	9.96%
2005	$69.93	$453.06	16.12%	4.69%	11.43%
2006	$81.51	$504.39	17.03%	4.68%	12.35%
2007	$66.17	$529.59	12.49%	4.86%	7.63%
2008	$14.88	$451.37	3.03%	4.45%	-1.42%
2009	$50.97	$513.58	10.56%	3.47%	7.09%
2010	$77.35	$579.14	14.16%	4.25%	9.91%
2011	$86.58	$613.14	14.52%	3.81%	10.71%
2012	$86.51	$666.97	13.52%	2.40%	11.12%
Average					**6.59%**

Source: Standard & Poor's Analysts' Handbook, Ibbotson Associates Handbook.

PROXY COMPANIES
CAPM COST RATES

COMPANY	RISK-FREE RATE	BETA	RISK PREMIUM	CAPM RATES
Parcell Proxy Group				
ALLETE	3.04%	0.70	5.47%	6.9%
Alliant Energy	3.04%	0.70	5.47%	6.9%
Avista Corp.	3.04%	0.70	5.47%	6.9%
Black Hills Corp	3.04%	0.80	5.47%	7.4%
IDACORP	3.04%	0.70	5.47%	6.9%
MGE Eneregy	3.04%	0.60	5.47%	6.3%
Northwestern Energy	3.04%	0.70	5.47%	6.9%
Pepco Holdings	3.04%	0.75	5.47%	7.1%
Portland General Electric	3.04%	0.75	5.47%	7.1%
TECO Eneregy	3.04%	0.85	5.47%	7.7%
Westar Energy	3.04%	0.75	5.47%	7.1%
Wisconsin Energy	3.04%	0.60	5.47%	6.3%
Mean				**7.0%**
Median				**6.9%**
Hevert Proxy Group				
American Electric Power Co	3.04%	0.65	5.47%	6.6%
Cleco Corp	3.04%	0.65	5.47%	6.6%
Empire District Electric	3.04%	0.65	5.47%	6.6%
Great Plains Energy	3.04%	0.80	5.47%	7.4%
Hawaiian Electric Industries	3.04%	0.70	5.47%	6.9%
IDACORP	3.04%	0.70	5.47%	6.9%
Otter Tail Corp.	3.04%	0.90	5.47%	8.0%
Pinnacle West Cajpital	3.04%	0.70	5.47%	6.9%
PNM Resources, Inc.	3.04%	0.95	5.47%	8.2%
Portland General Electric	3.04%	0.75	5.47%	7.1%
Southern Company	3.04%	0.55	5.47%	6.0%
Westar Energy	3.04%	0.75	5.47%	7.1%
Mean				**7.0%**
Median				**6.9%**

Sources: Value Line Investment Survey, Standard & Poor's Analysts' Handbook, Federal Reserve.

20-year Treasury Bonds	
Month	Rate
May, 2013	2.73%
June, 2013	3.07%
July, 2013	3.31%
Average	3.04%

PROXY COMPANIES
RATES OF RETURN ON AVERAGE COMMON EQUITY

COMPANY	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	1992-2001 Average	2002-2008 Average	2009-2012 Average	2013	2014	2016-18
Parcell Proxy Group																											
ALLETE	12.2%	11.5%	11.6%	12.0%	11.6%	9.6%	6.2%	9.1%	9.3%	10.3%	5.7%	7.6%	12.7%	12.0%	13.2%	13.4%	11.4%	7.3%	8.2%	9.5%	8.7%	10.3%	12.5%	8.4%	8.0%	8.5%	9.5%
Alliant Energy	14.0%	12.2%	10.5%	11.2%	10.6%	15.0%	10.2%	1.1%	13.4%	7.9%	4.5%	6.7%	8.5%	10.3%	9.4%	11.4%	10.2%	7.5%	10.8%	10.3%	11.0%	10.4%	9.0%	9.9%	11.5%	11.5%	11.0%
Avista Corp.	10.3%	9.4%	10.6%	9.4%	9.6%	9.9%	11.6%	17.2%	21.5%	22.1%	12.1%	8.9%	4.6%	5.8%	8.8%	4.1%	7.6%	8.4%	8.5%	8.6%	6.4%	16.9%	6.0%	6.3%	8.0%	8.0%	8.5%
Black Hills Corp	16.2%	14.7%	13.9%	14.4%	16.1%	16.2%	16.8%	17.2%	16.7%	21.5%	8.9%	4.2%	7.9%	9.4%	9.6%	10.9%	0.7%	8.4%	5.9%	3.6%	7.1%	12.3%	6.3%	6.3%	8.5%	8.5%	8.5%
IDACORP	11.2%	11.2%	10.1%	11.6%	12.1%	12.4%	12.4%	12.3%	16.7%	14.9%	7.1%	4.2%	8.2%	7.3%	9.4%	7.1%	8.0%	9.3%	9.8%	10.5%	9.9%	12.3%	7.3%	9.9%	9.0%	8.5%	8.5%
MGE Energy	13.1%	13.3%	13.1%	12.5%	7.1%	12.5%	12.2%	13.0%	14.2%	13.1%	13.2%	12.5%	11.4%	16.6%	11.9%	12.1%	11.8%	10.4%	11.3%	11.3%	11.4%	12.4%	11.8%	11.1%	11.5%	11.5%	11.5%
Northwestern Energy	10.6%	12.0%	10.8%	10.5%	11.7%	10.5%	11.3%	11.7%	8.9%	11.9%	9.8%	7.6%	8.3%	8.1%	6.4%	6.9%	8.4%	9.4%	9.6%	10.9%	9.3%	11.0%	9.6%	9.8%	9.5%	9.5%	9.5%
Pepco Holdings	12.9%	12.0%	11.3%	13.4%	13.9%	10.5%	11.3%?	13.8%	17.4%	11.9%	9.8%	7.6%	8.3%	8.1%	7.1%	7.9%	9.9%	5.5%	6.5%	6.0%	6.5%	12.7%	8.4%	6.1%	6.0%	6.5%	8.0%
Portland General Electric	16.1%	15.1%	14.5%	13.4%	16.5%	14.8%	13.5%	13.8%	17.4%	17.2%	13.5%	-0.7%	9.2%	14.2%	5.9%	11.5%	6.5%	6.2%	8.0%	9.0%	8.3%	15.6%	10.5%	7.9%	8.0%	7.5%	10.0%
TECO Energy	16.1%	15.1%	14.5%	16.6%	16.5%	14.8%	13.5%	5.2%	3.2%	-2.2%	5.0%	10.6%	7.7%	9.6%	14.7%	14.3%	8.1%	10.4%	11.4%	12.3%	10.8%	15.6%	10.5%	11.2%	9.0%	10.0%	12.0%
Westar Energy	11.0%	12.4%	10.7%	11.1%	10.4%	-1.6%	7.1%	5.2%	3.2%	-2.2%	5.0%	10.6%	7.7%	9.6%	11.1%	10.0%	6.7%	6.3%	8.6%	8.2%	9.5%	6.7%	8.7%	8.2%	9.0%	9.0%	9.5%
Wisconsin Energy	11.4%	11.8%	10.5%	13.0%	11.5%	3.2%	10.1%	11.3%	6.4%	10.6%	12.8%	11.8%	9.0%	11.6%	11.1%	11.1%	11.0%	10.8%	12.2%	13.0%	13.3%	10.0%	11.2%	12.3%	13.0%	13.0%	14.0%
Average	12.4%	12.6%	11.7%	12.6%	12.2%	10.3%	11.1%	10.5%	12.3%	11.8%	9.3%	7.7%	8.8%	10.4%	9.9%	10.1%	8.4%	8.3%	9.2%	9.4%	9.4%	11.8%	9.3%	9.1%	9.3%	9.3%	10.0%
Median	12.0%	12.1%	11.1%	12.3%	11.7%	12.4%	11.3%	11.7%	13.4%	11.9%	9.8%	7.6%	8.4%	9.6%	9.5%	11.0%	8.3%	8.4%	9.1%	9.9%	9.4%	12.0%	9.2%	9.2%	9.0%	8.8%	9.5%
Hevert Proxy Group																											
American Electric Power Co	11.1%	11.9%	12.0%	12.4%	13.2%	13.5%	11.3%	10.5%	4.1%	12.9%	12.3%	12.4%	12.7%	11.9%	12.2%	11.7%	11.6%	11.0%	9.3%	10.7%	9.7%	11.3%	12.1%	10.2%	9.5%	10.0%	10.0%
Cleco Corp	14.0%	12.4%	12.9%	13.4%	13.8%	12.8%	12.6%	12.9%	15.0%	14.6%	13.5%	11.5%	12.6%	11.6%	9.4%	8.2%	9.9%	9.7%	11.4%	11.4%	11.2%	13.4%	11.0%	10.9%	9.5%	10.5%	11.0%
Empire District Electric	10.3%	9.4%	10.6%	9.4%	9.6%	9.9%	11.6%	8.4%	10.0%	4.3%	8.4%	8.7%	5.7%	6.2%	9.2%	6.9%	7.4%	7.5%	7.4%	8.1%	7.9%	11.8%	7.5%	7.7%	8.0%	8.0%	8.5%
Great Plains Energy	9.8%	12.0%	11.7%	13.4%	11.6%	11.7%	13.2%	8.9%	14.2%	11.6%	16.6%	16.8%	16.9%	13.7%	9.8%	10.6%	5.9%	4.6%	7.3%	5.8%	6.2%	11.8%	12.7%	6.1%	7.0%	7.0%	8.0%
Hawaiian Electric Industries	10.9%	10.5%	11.1%	11.0%	10.5%	10.9%	11.5%	11.1%	9.8%	12.4%	11.9%	11.1%	9.3%	9.7%	9.3%	7.7%	7.0%	5.8%	7.7%	9.1%	10.4%	11.0%	11.8%	8.3%	9.0%	8.5%	8.0%
IDACORP	13.1%	13.3%	13.1%	12.5%	7.1%	12.5%	12.2%	13.0%	14.2%	13.1%	13.2%	12.5%	11.4%	9.4%	11.9%	12.1%	11.8%	10.4%	11.3%	11.3%	11.4%	12.4%	11.8%	11.1%	11.5%	11.5%	11.5%
Otter Tail Corp.	15.0%	15.6%	15.1%	14.7%	14.7%	14.7%	14.0%	14.7%	15.1%	15.1%	15.2%	12.0%	10.8%	11.6%	10.4%	10.4%	5.9%	3.7%	2.1%	2.7%	6.9%	14.8%	10.9%	3.9%	9.0%	10.0%	11.0%
Pinnacle West Capital	10.7%	10.9%	10.2%	10.6%	11.2%	11.9%	11.5%	12.3%	12.4%	12.8%	8.6%	8.3%	8.2%	6.7%	9.2%	8.5%	6.1%	6.8%	9.3%	8.7%	9.8%	11.5%	7.9%	8.7%	10.0%	10.0%	10.0%
PNM Resources, Inc.	4.6%	6.6%	11.7%	8.5%	9.9%	10.0%	11.3%	9.1%	10.2%	15.8%	6.3%	6.7%	7.9%	8.6%	5.9%	3.4%	0.5%	3.1%	4.8%	5.6%	6.6%	10.0%	5.1%	5.1%	7.0%	7.5%	9.0%
Portland General Electric	12.9%	12.0%	11.3%	13.4%	13.9%	11.4%	12.3%	13.1%	13.6%	11.9%	15.7%	15.6%	15.2%	15.0%	14.2%	14.5%	13.5%	13.2%	12.6%	12.9%	12.9%	12.7%	14.8%	12.9%	13.0%	13.0%	12.5%
Southern Company	13.4%	13.4%	12.4%	13.0%	12.6%	14.5%	14.0%	5.2%	13.6%	11.9%	15.7%	15.8%	15.2%	15.0%	14.2%	14.5%	13.5%	13.2%	12.6%	12.9%	12.9%	12.7%	14.8%	12.9%	13.0%	13.0%	12.5%
Westar Energy	11.0%	12.4%	10.7%	11.1%	10.4%	-1.6%	7.1%	5.2%	3.2%	-2.2%	5.0%	10.6%	7.7%	9.6%	11.1%	10.0%	6.7%	6.3%	8.6%	8.2%	9.5%	6.7%	8.7%	8.2%	9.0%	9.0%	9.5%
Average	11.4%	11.8%	11.9%	12.0%	11.5%	10.7%	11.7%	10.8%	11.1%	11.1%	11.4%	11.5%	10.9%	10.4%	10.1%	9.6%	7.7%	7.4%	8.3%	8.6%	9.2%	11.5%	10.1%	8.4%	9.2%	9.3%	9.8%
Median	11.1%	12.0%	11.7%	12.5%	11.4%	11.7%	11.6%	11.1%	12.4%	12.8%	12.3%	11.5%	10.9%	9.7%	9.6%	10.2%	6.9%	6.6%	8.3%	8.9%	9.6%	11.8%	10.1%	8.3%	9.0%	9.5%	9.8%

Source: Calculations made from data contained in Value Line Investment Survey.

PROXY COMPANIES
MARKET TO BOOK RATIOS

COMPANY	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	1992-2001 Average	2002-2008 Average	2009-2012 Average
Parcell Proxy Group																								
ALLETE	190%	185%	154%	152%	154%	155%	156%	120%	120%	129%	110%	97%	322%	212%	219%	195%	156%	113%	127%	138%	136%	152%	221%	129%
Alliant Energy	151%	163%	133%	125%	145%	162%	163%	152%	317%	114%	85%	94%	120%	131%	155%	173%	131%	102%	131%	147%	162%	163%	131%	136%
Avista Corp.	264%	221%	169%	185%	198%	228%	255%	237%	301%	273%	143%	134%	111%	115%	135%	127%	110%	94%	108%	119%	123%	233%	111%	111%
Black Hills Corp	155%	172%	145%	148%	168%	177%	177%	158%	189%	185%	134%	112%	134%	165%	153%	164%	124%	77%	108%	109%	121%	233%	145%	104%
IDACORP	189%	196%	189%	183%	203%	189%	197%	177%	172%	197%	214%	223%	125%	122%	139%	132%	160%	94%	113%	119%	123%	168%	124%	112%
MGE Energy														207%	191%	178%	160%	154%	170%	182%	203%	189%	197%	177%
Northwestern Energy													109%	282%	129%	147%	109%	105%	122%	138%	146%		175%	128%
Pepco Holdings	160%	162%	135%	138%	161%	151%	161%	166%	139%	124%	110%	103%	109%	122%	129%	141%	115%	75%	92%	98%	101%	150%	118%	92%
Portland General Electric	115%	125%	112%	140%	199%										153%	140%	101%	83%	97%	109%	117%	138%	131%	102%
TECO Energy	243%	288%	224%	238%	241%	234%	247%	210%	223%	222%	135%	111%	174%	243%	202%	188%	171%	131%	164%	172%	188%	235%	175%	159%
Westar Energy	144%	152%	130%	129%	126%	131%	128%	89%	74%	78%	67%	109%	132%	142%	139%	140%	107%	91%	111%	119%	133%	118%	119%	114%
Wisconsin Energy	178%	177%	160%	172%	169%	154%	185%	152%	119%	126%	129%	147%	156%	138%	182%	179%	153%	147%	171%	186%	213%	159%	155%	179%
Average	179%	182%	155%	161%	176%	176%	185%	162%	184%	161%	125%	126%	159%	171%	163%	159%	128%	106%	126%	136%	146%	170%	150%	128%
Median	169%	175%	150%	150%	169%	162%	177%	158%	172%	161%	129%	111%	133%	142%	154%	156%	120%	98%	118%	129%	135%	161%	135%	120%
Hevert Proxy Group																								
American Electric Power Co	143%	159%	143%	156%	176%	187%	191%	154%	147%	179%	138%	124%	155%	165%	161%	190%	145%	112%	118%	128%	134%	164%	154%	123%
Cleco Corp	177%	175%	156%	162%	168%	171%	183%	172%	223%	224%	154%	134%	177%	177%	162%	162%	132%	129%	139%	151%	168%	181%	157%	147%
Empire District Electric	184%	178%	143%	142%	143%	138%	168%	177%	183%	162%	132%	133%	144%	148%	149%	150%	122%	100%	127%	128%	124%	162%	140%	120%
Great Plains Energy	160%	173%	151%	168%	181%	198%	209%	178%	173%	185%	163%	198%	218%	189%	181%	173%	113%	73%	87%	69%	97%	178%	176%	87%
Hawaiian Electric Industries	171%	154%	141%	149%	147%	147%	154%	132%	127%	145%	153%	151%	179%	181%	192%	166%	166%	113%	140%	150%	164%	147%	170%	142%
IDACORP	155%	172%	145%	148%	168%	177%	177%	158%	189%	185%	134%	112%	125%	122%	139%	132%	104%	94%	113%	119%	123%	168%	124%	112%
Otter Tail Corp.	116%	120%	207%	213%	209%	195%	198%	201%	221%	243%	245%	209%	185%	183%	178%	200%	167%	108%	120%	123%	152%	192%	195%	126%
Pinnacle West Capital	116%	125%	99%	116%	133%	152%	180%	143%	145%	154%	116%	114%	130%	130%	129%	127%	100%	90%	113%	125%	141%	136%	121%	117%
PNM Resources, Inc.	72%	84%	87%	95%	108%	106%	106%	85%	94%	123%	95%	93%	124%	147%	134%	125%	72%	50%	68%	86%	100%	96%	113%	76%
Portland General Electric															153%	140%	101%	83%	97%	109%	117%	138%	131%	102%
Southern Company	154%	180%	161%	174%	175%	167%	198%	186%	188%	209%	230%	233%	227%	238%	229%	230%	211%	182%	186%	208%	218%	179%	228%	199%
Westar Energy	144%	152%	130%	129%	126%	131%	128%	89%	74%	67%	67%	109%	132%	142%	139%	140%	107%	91%	111%	119%	133%	118%	119%	114%
Average	142%	150%	140%	149%	161%	161%	172%	152%	160%	172%	148%	146%	163%	166%	162%	161%	128%	102%	118%	128%	139%	165%	152%	122%
Median	149%	157%	143%	149%	168%	167%	180%	158%	173%	179%	138%	133%	155%	165%	157%	156%	118%	97%	116%	124%	134%	162%	146%	118%

Source: Calculations made from data contained in Value Line Investment Survey.

STANDARD & POOR'S 500 COMPOSITE
RETURNS AND MARKET-TO-BOOK RATIOS
1992 - 2012

YEAR	RETURN ON AVERAGE EQUITY	MARKET-TO BOOK RATIO
1992	12.2%	271%
1993	13.2%	272%
1994	16.4%	246%
1995	16.6%	264%
1996	17.1%	299%
1997	16.3%	354%
1998	14.6%	421%
1999	17.3%	481%
2000	16.2%	453%
2001	7.5%	353%
2002	8.4%	296%
2003	14.2%	278%
2004	15.0%	291%
2005	16.1%	278%
2006	17.0%	277%
2007	12.8%	284%
2008	3.0%	224%
2009	10.6%	187%
2010	14.2%	208%
2011	14.6%	208%
2012	13.5%	214%
Averages:		
1992-2001	14.7%	341%
2002-2008	12.4%	275%
2009-2012	13.2%	204%

Source: Standard & Poor's Analyst's Handbook, 2012 edition, page 1.

RISK INDICATORS

COMPANY	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FINANCIAL STRENGTH		S&P STOCK RANKING	
Parcell Proxy Group						
ALLETE	2	0.70	A	4.00	B	3.00
Alliant Energy	2	0.70	A	4.00	B	3.00
Avista Corp.	2	0.70	A	4.00	A-	3.67
Black Hills Corp	3	0.80	B+	3.33	B	3.00
IDACORP	2	0.70	B++	3.67	B+	3.33
MGE Eneregy	1	0.60	A	4.00	B+	3.33
Northwestern Energy	3	0.70	B+	3.33	NR	
Pepco Holdings	3	0.75	B	3.00	B	3.00
Portland General Electric	2	0.75	B++	3.67	NR	
TECO Eneregy	2	0.85	B++	3.67	B	3.00
Westar Energy	2	0.75	B++	3.67	B+	3.33
Wisconsin Energy	1	0.60	A	4.00	A	4.00
	2.1	0.72	B++	3.70	B+	3.27
Hevert Proxy Group						
American Electric Power Co	3	0.65	B++	3.67	B	3.00
Cleco Corp	1	0.65	A	4.00	B	3.00
Empire District Electric	2	0.65	B++	3.67	B+	3.33
Great Plains Energy	3	0.80	B++	3.67	B	3.00
Hawaiian Electric Industries	2	0.70	B++	3.67	B	3.00
IDACORP	2	0.70	B++	3.67	B+	3.33
Otter Tail Corp.	3	0.90	B++	3.33	B	3.00
Pinnacle West Cajpital	1	0.70	A	4.00	B	3.00
PNM Resources, Inc.	3	0.95	B	3.00	B	3.00
Portland General Electric	2	0.75	B++	3.67	NR	
Southern Company	1	0.55	A	4.00	A-	3.67
Westar Energy	2	0.75	B++	3.67	B+	3.33
Average	2.1	0.73	B++	3.67	B+	3.15

RISK INDICATORS

GROUP	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FIN STR	S & P STK RANK
S & P's 500 Composite	2.7	1.05	B++	B
Parcell Proxy Group	2.1	0.72	B++	B+
Hevert Proxy Group	2.1	0.73	B++	B+

Sources: Value Line Investment Survey, Standard & Poor's Stock Guide.

Definitions:

Safety rankings are in a range of 1 to 5, with 1 representing the highest safety or lowest risk.

Beta reflects the variability of a particular stock, relative to the market as a whole. A stock with a beta of 1.0 moves in concert with the market, a stock with a beta below 1.0 is less variable than the market, and a stock with a beta above 1.0 is more variable than the market.

Financial strengths range from C to A++, with the latter representing the highest level.

Common stock rankings range from D to A+, with the later representing the highest level.

DELMARVA POWER & LIGHT COMPANY
RATING AGENCY RATIOS

Item	Percent	Cost	Weighted Cost	Pre-Tax Cost	
Long-Term Debt	50.78%	4.91%	2.49%	2.49%	
Common Equity	49.22%	9.35%	4.60%	7.67%	
Total	100.00%		7.09%	10.16%	1/

1/ Post-tax weighted cost divided by .60 (composite tax factor)

Pre-Tax coverage =   **4.08** = (10.16% / 2.49%)

Standard & Poor's Utility Benchmark Ratios:
Business Profile of "3"

	A	BBB
Pre-tax coverage	2.8x - 3.4x	1.8x - 2.8x
Total debt to total capital	50%-55%	55%-65%

UPDATE OF DP&L WITNESS HEVERT'S DISCOUNTED CASH FLOW ANALYSES

	Dividend Yield (1)	Expected Dividend Yield (2)	Zacks EPS Growth (3)	Zacks DCF (4)	Expected Dividend Yield (5)	First Call EPS Growth (6)	First Call DCF (7)	Expected Dividend Yield (8)	Value Line EPS Growth (9)	Value Line DCF (10)	Average DCF (11)	Expected Dividend Yield (12)	Highest EPS Growth (13)	Highest DCF (14)	Highest DCF Excl Extreme Values (15)
American Electric Power Co	4.15%	4.23%	3.87%	8.10%	4.23%	3.81%	8.04%	4.24%	4.50%	8.74%	8.30%	4.24%	4.50%	8.74%	8.74%
Cleco Corp	3.11%	3.23%	8.00%	11.23%	3.23%	8.00%	11.23%	3.19%	5.50%	8.69%	10.39%	3.23%	8.00%	11.23%	11.23%
Empire District Electric	4.39%	4.45%	3.00%	7.45%	4.45%	3.00%	7.45%	4.50%	5.00%	9.50%	8.14%	4.50%	5.00%	9.50%	9.50%
Great Plains Energy	3.74%	3.86%	6.19%	10.05%	3.86%	6.26%	10.12%	3.86%	6.50%	10.36%	10.18%	3.86%	6.50%	10.36%	10.36%
Hawaiian Electric Industries	4.76%	4.85%	3.70%	8.55%	4.82%	2.40%	7.22%	4.85%	3.50%	8.35%	8.04%	4.85%	3.70%	8.55%	8.55%
IDACORP	3.07%	3.14%	4.50%	7.64%	3.13%	4.00%	7.13%	3.10%	2.00%	5.10%	6.62%	3.14%	4.50%	7.64%	7.64%
Otter Tail Corp.	4.07%	4.19%	6.00%	10.19%	4.19%	6.00%	10.19%	4.51%	21.50%	26.01%	15.46%	4.51%	21.50%	26.01%	(16)
Pinnacle West Capital	3.84%	3.93%	4.59%	8.52%	3.95%	5.45%	9.40%	3.94%	5.00%	8.94%	8.95%	3.95%	5.45%	9.40%	9.40%
PNM Resources, Inc.	2.92%	3.02%	7.32%	10.34%	3.01%	6.43%	9.44%	3.09%	12.00%	15.09%	11.63%	3.09%	12.00%	15.09%	(17)
Portland General Electric	3.55%	3.66%	6.27%	9.93%	3.66%	6.52%	10.18%	3.61%	3.50%	7.11%	9.07%	3.66%	6.52%	10.18%	10.18%
Southern Company	4.48%	4.58%	4.44%	9.02%	4.58%	4.60%	9.18%	4.58%	4.50%	9.08%	9.09%	4.58%	4.60%	9.18%	9.18%
Westar Energy	4.18%	4.29%	5.07%	9.36%	4.26%	3.90%	8.16%	4.31%	6.00%	10.31%	9.28%	4.31%	6.00%	10.31%	10.31%
Average	3.85%	3.95%	5.25%	9.20%	3.95%	5.03%	8.98%	3.98%	6.63%	10.61%	9.59%	3.99%	7.36%	11.35%	9.51%
Median	3.96%	4.06%	4.83%	9.19%	4.07%	5.03%	9.29%	4.09%	5.00%	9.01%	9.08%	4.10%	5.73%	9.84%	9.45%

(1) Current annualized dividend rate divided by average of high and low stock price for the three-month period ended July 31, 2013, as shown on Exhibit DCP-7, page 1 of 4.

(2) Current dividend yield, from column (1), increased by one-half the EPS growth rate, as shown in column (3).

(3) Current Zacks EPS growth rates, using Zacks website as of August 12, 2013.

(4) DCF cost rate by combining columns (2) and (3).

(5) Current dividend yield, from column (1), increased by one-half the EPS growth rate, as shown in column (6).

(6) Current First Call EPS growth rates, using Yahoo! Finance website, as shown on Exhibit DCP-7, page 4 of 4.

(7) DCF cost rate by combining columns (5) and (6).

(8) Current dividend yield, from column (1), increased by one-half the EPS growth rate, as shown in column (9).

(9) Current Value Line EPS growth rate, as shown on Exhibit DCP-7, page 3.

(10) DCF cost rate by combining columns (8) and (9).

(11) Average of columns (4), (7), and (10).

(12) Current dividend yield, from column (1), increased by one-half the EPS growth rate, as shown in column (13).

(13) Highest EPS growth rate, from columns (3), (6), and (9).

(14) DCF cost rate by combining columns (12) and (13).

(15) Highest DCF cost rates excluding two companies that exhibit extreme and unstatainable values of EPS growth, as described in (16) and (17) below.

(16) Otter Tail Power has a Value Line projected EPS growth rate of 21.5%. This follows a five-year annual historic decline in EPS growth of 18.5%.

(17) PNM Resources has a Value Line projected EPS growth rate of 12.0%. This follows a five-year annual historic decline in EPS growth of 4.0%.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF	)	
DELMARVA POWER & LIGHT COMPANY	)	PSC DOCKET NO. 13-115
FOR AN INCREASE IN ELECTRIC BASE	)	
RATES (Filed March 22, 2013)	)	

CERTIFICATE OF SERVICE

I hereby certify that on August 16, 2013 I caused the following to be served upon all

parties on the attached service list in the manner indicated thereon.

- **DIRECT TESTIMONY OF DAVID C. PARCELL ON BEHALF OF THE DIVISION OF THE PUBLIC ADVOCATE**

- **DIRECT TESTIMONY OF ANDREA C. CRANE ON BEHALF OF THE DIVISION OF THE PUBLIC ADVOCATE**

- **DIRECT TESTIMONY OF DAVID E. DISMUKES, PH.D. ON BEHALF OF THE DIVISION OF THE PUBLIC ADVOCATE**

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Dated: August 16, 2013

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DP&L ELECTRIC BASE RATE CASE
PSC DOCKET No. 13-115
As of 7/3/13

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PSC DOCKET No. 13-115
As of 7/3/13

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DP&L ELECTRIC BASE RATE CASE
PSC DOCKET No. 13-115
As of 7/3/13

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